



Dissertation

Master in Corporate Finance

**The Impact of Culture and Corporate Governance  
in Dividend Policy: Evidence from Emerging and  
Developed Countries**

**Ana Rita Camilo de Oliveira**

Leiria, September 2016





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# **The Impact of Culture and Corporate Governance in Dividend Policy: Evidence from Emerging and Developed Countries**

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*To Luís*



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# Abstract

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The present research aims to analyse the impact of corporate governance and cultural dimensions in dividend policy.

The corporate governance and dividend policy have a close relationship, in that both are evidenced in literature to mitigate agency problems. Cultural factors are also related to agency problems. The existence of agency problems and their solutions differs across countries and it is related to the implementation of the mechanisms of governance. So, cultural factors may have influence on corporate governance and dividend policy.

Our sample consists in 1 232 companies belonging to the main indices of 38 countries classified as emerging or developed. To measure the quality of firm level corporate governance, we use the ASSET4 Corporate Governance Performance Index, developed by Thomson Reuters, and as proxy of culture we use three cultural dimensions developed by Geert Hofstede, namely uncertainty avoidance, masculinity and indulgence.

We obtained significant empirical evidence that firms with high quality of corporate governance pay higher dividends. With regard to cultural factors, we confirm that in countries with high levels of masculinity and uncertainty avoidance, the dividend payout ratio is lower. On the other hand, countries with high level of indulgence have higher dividend payout ratio. However, we verify that the impact of cultural effects is minimized when the firms have a high quality level of corporate governance. Additionally, we found that the impact of corporate governance and cultural factors in dividend policy differs when dealing with emerging or developed countries.

Keywords: Corporate governance, culture, dividend policy.



## Resumo

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O presente estudo tem como objetivo analisar o impacto do governo das sociedades e dos fatores culturais na política de dividendos das empresas.

Os conceitos de governo das sociedades e de política de dividendos encontram-se relacionados, na medida em que ambos são apontados como solução para minimizar os problemas de agência. Os fatores culturais também se encontram relacionados com os problemas de agência. A existência de problemas de agência e a sua resolução difere entre países e está relacionada com a implementação dos mecanismos de governo das sociedades. Assim, os fatores culturais têm influência, quer no governo das sociedades, quer na política de dividendos.

A nossa amostra consiste em 1 232 empresas pertencentes aos principais índices de 38 países, classificados como emergentes e desenvolvidos. Para mensurar a qualidade do governo por empresa, utilizamos o índice ASSET4 Corporate Governance Performance desenvolvido pela Thomson Reuters, e como *proxy* da cultura, utilizamos três dimensões culturais desenvolvidas por Geert Hofstede, concretamente a aversão à incerteza, a masculinidade e a indulgência.

Foi obtida evidência empírica estatisticamente significativa de que empresas com qualidade superior de governo das sociedades pagam dividendos mais elevados. Relativamente aos fatores culturais, verificamos que em países com elevados níveis de masculinidade e aversão à incerteza, o rácio de pagamento de dividendos é menor. Por outro lado, países que apresentam elevados nível de indulgência apresentam dividendos mais elevados. No entanto, verificamos que o efeito dos fatores culturais é atenuado quando as empresas apresentam uma elevada qualidade de governo das sociedades. Adicionalmente, verificamos que o impacto do governo das sociedades e dos fatores culturais na política de dividendos difere quando se tratam de países emergentes ou desenvolvidos.

Palavras-chave: Governo das sociedades, cultura, política de dividendos.



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## List of acronyms

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ASSET4 - ASSET4 Corporate Governance Performance Index  
CEO - Chief Executive Officer  
CGQ - Corporate Governance Quotient Index  
CLSA - Credit Lyonnais Securities Asia  
CMVM - Comissão do Mercado de Valores Mobiliários  
ESG - Environmental, Social and Governance Indices  
G – *G-Index*  
GMI - Governance Metrics International  
GRID - Governance Risk Indicators  
IBM - International Business Machines Corp.  
IND - Indulgence  
IRRC - Investor Responsibility Research Center  
ISS - Institutional Shareholder Services  
KPI - Key Performance Indicators  
MAS - Masculinity  
OECD - Organization for Economic Co-Operation and Development  
OLS - Ordinary Least Squares  
S&P - Standard & Poor's  
TCL - The Corporate Library  
UAI – Uncertainty Avoidance Index  
VIF - Variance Inflation Factor



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# 1. Introduction

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Among the literature there are evidence of the relevance of dividends to mitigate agency problems (Easterbrook, 1984; Jensen & Meckling, 1976). Also DeAngelo and DeAngelo (2006) offer evidence of the relevance of payout policy in firm value. Several studies conclude that firm's dividend policy is affected by factors such as firm size, growth opportunities, leverage, profitability, business risk, signalling incentives and corporate governance (Aivazian, Booth, & Cleary, 2003; Denis & Osobov, 2008; Jiraporn, Kim, & Kim, 2011; Mitton, 2004).

It is well known that corporate governance and dividend policies have a close relationship, in that both are evidenced in literature to mitigate agency problems. Corporate governance refers to the mechanisms that solve the agency problems between the owners of capital and managers (Jensen & Meckling, 1976). The empirical literature presents three generations of corporate governance. Denis and McConnell (2003) identifies two of these generations. The first generation related the specific mechanisms of corporate governance and the firm performance. The second generation related the impact of the legal systems on corporate governance and firm value. Indeed, to La Porta, Lopez-de-Silanes, Shleifer, and Vishny (2000a) the protection of shareholders and creditors by the legal system is fundamental to understand the differences between corporate governance in countries. La Porta, Lopez-de-Silanes, Shleifer, and Vishny (2000b) found that firms in common law countries, where investor protection is better, pay higher dividend than firms in civil law countries, where investor protection is worse. Instead, the third generation of studies use governance ratings to measure the firm level quality of corporate governance. The results of empirical studies using corporate governance ratings are similar. For example, according to Jiraporn *et al.* (2011) and Mitton (2004), firms with strong corporate governance tend to pay larger dividends. Mitton (2004) concludes also that corporate governance and investor protection level are complementary variables. Other authors obtained evidence that these variables are substitutes (Klapper & Love, 2004).

Recently, several authors emphasize the importance of cultural factors in capital structure, performance and company value (Fauver & McDonald, 2015; Gleason, Mathur, & Mathur, 2000; Khambata & Liu, 2005). Truly cultural factors have been identified as relevant to

explain corporate policies. Cultural differences across countries exist and companies are affected by those differences. In this line, Licht, Goldschmidt and Schwartz (2005) emphasize the importance of considering cultural factors in corporate governance.

Bae, Chang and Kang (2012) studies the relationship between dividend policy, corporate governance at the country level and cultural elements and found that firms operating in countries with a similar level of corporate governance and similar financial development pay different dividends. The authors also found a negative relationship between dividend policy and three Hofstede's cultural dimensions: uncertainty avoidance, long-term orientation and masculinity. However, the association between dividend policy and culture varies with the intensity of corporate governance quality (Bae *et al.*, 2012). One of the limitations appointed by Bae *et al.* (2012), which gave rise their study, is the failure to consider the cultural differences across countries on the determinants of corporate dividend policy.

Similar to Bae *et al.* (2012), we intend to analyse the impact of culture and corporate governance in firm dividend policy. In view of this, firstly we examine the impact of cultural variables and the impact of corporate governance in dividend policy. Diverse from Bae *et al.* (2012), that analyses the impact of country-level corporate governance, we analyse firm-level corporate governance in dividend policy. Afterwards, we analyse the joint effect of firm-level corporate governance and cultural factor. The objective of this analyse is to look at the effect of country cultural factors on firm dividend policy conditional on the quality of firm governance structures.

As a proxy for firm quality of governance's structures, we consider a firm level corporate governance rating, the ASSET4 Corporate Governance Performance, in place of the measure of country level investor protection used by Bae *et al.* (2012). To proxy for country cultural factors we will use three Hofstede's cultural dimensions: masculinity, uncertainty avoidance and indulgence. The introduction of the cultural variable indulgence contributes to the literature once this variable was only used by Zheng and Ashraf (2014) in robustness tests, where the authors seek to analyse the relationship between national culture and dividend policy from banking. Lastly, pretending to proxy for cultural factors, we will create a cultural index representative of the three cultural variables used in this study.

We also pretend to answer the question: Do the corporate governance and cultural factors have the same impact on dividend policy in emerging and developed markets? To answer this question, we will use a sample data by 1 232 firms distributed by 38 countries, which are classified as emerging or developed countries based on Dow Jones country classification<sup>1</sup>. We collected sample data and carried out the analysis to the year 2014. The characteristics of the markets are different, as well as cultural values and governance characteristics, so it is expected, alike Fauver & McDonald (2015), that the impact of country cultural factors and firm level corporate governance in dividend policy was different in the emerging and developed countries.

The many contributions of present research are related to four essential points: (1) the use of ASSET4 Corporate Governance Performance Index (ASSET4) as a measure of firm-level corporate governance; (2) the use of the cultural variable indulgence; (3) the creation of a cultural index that combines the three used Hofstede's cultural dimensions, and (4) the use of data from 38 emerging and developed countries.

The structure of the dissertation is divided in four more chapters: literature review, sample selection and methodology, results and discussion and the conclusion. The literature review is divided into five points. First we discuss the key issue of corporate governance, second we present the relevant literature of dividend policy, third, we discuss the cultural dimension, fourth we will evidence the effect of culture and corporate governance in dividend policy and finally we present some conclusions.

Next, the sample selection and methodology show the sample and data collection, variables, development of the hypotheses and the proposed model. In this point we describe the sample and variables and we define the model and the hypotheses to test.

In results and discussion, we present the results of the empirical tests, the assessment of the results obtained and the comparison with existing literature.

Lastly, we present the many conclusions, the limitations of the study and suggestions for future research.

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<sup>1</sup> Annual Country Classification Review developed by S&P Dow Jones Indices for the year 2014.



## 2. Literature review

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The relevance of corporate governance emerges with the agency theory developed by Jensen and Meckling (1976). Corporate governance is pointed as a solution to the agency problems between shareholders and managers. Similarly to corporate governance, also dividends are evidenced as a solution to mitigate the same problem. Therefore, we can affirm that corporate governance and dividend policy have a close relationship.

The literature presents empirical evidence of the impact of corporate governance in dividend policy. The results are consistent with agency models developed by La Porta *et al.* (2000b). On one hand, some studies point that the mechanisms are substitutes (Harford, Mansi, & Maxwell, 2008; Jiraporn & Ning, 2006). On the other hand, some authors evidenced the dividend policies are the result of good governance (Gugler & Yurtoglu, 2003; Mitton, 2004).

Recently, has been evidenced the importance of cultural factors in corporate policies, namely, in corporate governance and dividends. The relevant literature provides strong support that the national culture influences dividend policies. However, the results between culture and corporate governance in the dividend policy are not consistent all the time.

In this point, we present the most important concepts to frame this work and also the relevant literature. The literature review is divided into four sub chapters. Firstly, we present the relevant literature to corporate governance. Secondly, we analyse the relevant literature on firm dividend policy. Thirdly, we present the concept and relevant literature about cultural factors, and finally we present the empirical evidence surrounding culture, corporate governance and corporate dividend policy.

## 2.1. Corporate Governance

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Corporate governance is evidenced as a solution to mitigate agency problems<sup>2</sup>. Since Jensen and Meckling's (1976) research about the agency theory, a body of research emerged about corporate governance. In the 1970s and '80s, the research was most in the United States. In 1990, these studies extended to another countries. At first, that research focused primarily on major world economies, namely Japan, Germany, and the United Kingdom. In more recent years, we have witnessed an explosion of research on corporate governance around the world, for both developed and emerging markets. (Denis & McConnel, 2003).

According to Jensen and Meckling (1976), corporate governance refers to the mechanisms that solve the agency problem between the owners of capital and managers. In this line, Agrawal and Knoeber (1996) consider a set of mechanisms<sup>3</sup> of corporate governance to control for agency problems between managers and shareholders. Their sample consists in 383 firms of Forbes 800 in 1987, and they found evidence that these mechanisms can be used to control agency problems.

Denis and McConnel (2003) identify two generations of corporate governance studies. The first generation relates the specific mechanisms of corporate governance and the firm performance. The second generation relates the impact of the legal systems on corporate governance (country level corporate governance) and firm value. More recently, several others studies emerged relating the impact of corporate governance mechanisms in firm value. In these studies, the quality of corporate governance is measured using indices

In this point, we present the concept of corporate governance and the governance systems based on Shleifer and Vishny (1997) and La Porta, Lopez-de-Silanes, Shleifer and Vishny (1998) research. Additionally, we present some empirical studies and we describe corporate

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<sup>2</sup> Jensen and Meckling (1976, p. 308) define agency relationship "as a contract under which one or more persons (the principal(s)) engage another person (the agent) to perform some service on their behalf which involves delegating some decision making authority to the agent." Since managers and shareholders are utility maximizers, decisions may create a conflict of interest between them – agency problem. In this way, the interests of managers cannot meet the interests of shareholders.

<sup>3</sup> They use seven mechanisms to control agency problems between managers and shareholders: insiders' shareholdings, institutions, and large blockholders; use of outside directors; debt policy; the managerial labor market and the market of for corporate control.

governance measures, namely the index ASSET4 Corporate Governance Performance that we will be used in the present study.

### 2.1.1. Concept

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There is a several number of definitions of corporate governance. The empirical literature suggests solutions provided by corporate governance, which mitigates agency problems, namely, conflicts of interest between managers and shareholders.

Shleifer and Vishny (1997, p. 737) define corporate governance as “the ways in which suppliers of finance to corporation assure themselves of getting a return on their investment”.

A perspective focused on the shareholders’ interest, La Porta *et al.* (2000a, p. 4), in their study about investor protection and corporate governance, describe corporate governance as “a set of mechanisms through which outside investors protect themselves against expropriation<sup>4</sup> by the insiders”.

On the other hand, Denis and McConnell (2003, p. 2) show a perspective focused on firm value and define “corporate governance as the set of mechanisms—both institutional and market-based — that induce the self-interested controllers of a company [...] to make decisions that maximize the value of the company to its owners.”

The OECD<sup>5</sup> defines corporate governance as a system by which business corporations are directed and controlled. In 1999, the OECD developed the “Principles of Corporate Governance”. These “Principles” are a set of corporate governance standards and guidelines that represent the essential for the development of good governance practices. OCDE (2004, p. 11) refers that “corporate governance involves a set of relationships between a company’s management, its board, its shareholders and other stakeholders. ”

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<sup>4</sup> La Porta *et al.* (2000a) states that "expropriation" may take various forms. On the one hand, the insiders simply steal the profits. On the other hand, can be done through more complex activities such as diversion of corporate opportunities of the company, management positions assumed by family members not qualified or the overpayment to the executive bodies. The is, “expropriation” is related to agency problems between the interests of managers and shareholders described by Jensen and Meckling (1976).

<sup>5</sup> The Organization for Economic Co-Operation and Development is constituted by 34 countries included Portugal. For more information see the “*OCDE Principles of Corporate Governance*” in 2004.

In the same line, *Comissão do Mercado de Valores Mobiliários*,<sup>6</sup> include a series of recommendations of corporate governance, namely a system of rules and behaviours concerning the exercise of direction and control of listed companies in Portugal. CMVM definition has underlined both an internal and an external aspect. The internal aspect encompasses a set of internal rules to the company, and the external aspect is reflected in the performance of companies, notably in its market position.

### 2.1.2. Governance Systems

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The corporate governance definition from Denis and McConnell (2003) conducts a set of mechanisms aimed at overcoming the decisions and maximize the value of the company to its owners. That set of mechanisms of governance is divided in two groups: firm-level mechanisms and country-level mechanisms. The most cited firm-level mechanisms are essentially related with the ownership structure, the board, the CEO and Chairman roles and the capital structure, i.e., mechanisms that can be changed by the company. (Harford *et al.*, 2008; Jiraporn & Ning, 2006; Mitton, 2002). The country-level mechanisms are related with country characteristics, namely, the legal system and investor protection (La Porta *et al.*, 1998), culture and norms (Aggarwal, Erel, Stulz, & Williamson, 2009).

Shleifer and Vishny (1997) argue that mechanisms of corporate governance differ across the institutional environment and consider two principal systems: Anglo Saxon and Continental. The Anglo Saxon system is represented by the United States and the United Kingdom. The Continental system is represented by Japan and Germany, however this system covers all Continental Europe countries. The authors assert that a good corporate governance systems takes into account, both the legal investor protection and the concentration of ownership.

In the same order, La Porta *et al.* (1998) consider the difference in governance systems based in the country-level investor protection. They studied the importance of legal protection of investor and ownership concentration in forty-nine countries from Europe, North and South America, Africa, Asia and Australia. The investor protection depends on legal family<sup>7</sup>. Thus,

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<sup>6</sup> See “Recommendations of CMVM regarding corporate governance”, available at: [http://www.cmvm.pt/pt/Legislacao/Legislacaonacional/Recomendacoes/Documents/f6bac7142a7447fa89b0e8f3d91bea0bCodigoGS15022008\\_2\\_.pdf](http://www.cmvm.pt/pt/Legislacao/Legislacaonacional/Recomendacoes/Documents/f6bac7142a7447fa89b0e8f3d91bea0bCodigoGS15022008_2_.pdf)

<sup>7</sup> The common law family includes the English origin. The law is formed by judges who have to resolve specific disputes, in the other words, the law is based on jurisprudence. Civil law includes French, German and

countries whose legal rules originate in common law give, both shareholders and creditors, the strongest protection. On the contrary, countries whose legal rules originate in civil law provide weak legal rights protection. To La Porta *et al.* (2000a), the protection of shareholders and creditor, by the legal system, is fundamental to understand the differences between corporate governance in countries. Table 1 shows the governance system and family law of the thirty-eight countries of our sample<sup>8</sup>. The countries classification by legal family is based on La Porta *et al.* (1998) research and data from Central Intelligence Agency<sup>9</sup>.

Table 1: **Governance system of the sample countries**

<b>Governance System</b>	<b>Law</b>	<b>Countries</b>	
Anglo-Saxon	Common Law	Australia	Malaysia
		Canada	New Zealand
		Hong Kong	Singapore
		India	United Kingdom
		Ireland	United States
		Israel	
Continental	Civil Law	Austria	Netherlands
		Belgium	Norway
		China	Philippines
		Denmark	Poland
		Egypt	Portugal
		Finland	Russia
		France	South Africa
		Germany	South Korea
		Hungary	Spain
		Indonesia	Sweden
		Italy	Switzerland
		Japan	Taiwan
		Luxembourg	Thailand
		Mexico	

**Note:** The table presents the governance system of the countries represented in the sample used in this study. The first column identifies the governance system. The second column presents the family law. The third column presents the countries of the sample. Source: Adapted from La Porta *et al.*, (1998). Law and Finance. *Journal of Political Economy*, 106(6), 113–115 and Central Intelligence Agency consulted on 17<sup>th</sup> February 2016.

Scandinavian origin. The civil law family is based on statutes, comprehensives codes, and legal material as a primary means of the ordering legal.

<sup>8</sup> The final sample data is composed by 1 232 companies, belonging to the main indices by thirty-eight countries, which are classified as emerging or developed countries based on Dow Jones country classification.

<sup>9</sup>For more information see: <https://www.cia.gov/library/publications/the-world-factbook/fields/2100.htm>

Over the years, countries have been developing and adopting corporate governance standards. Table 2 shows the evolution of the corporate governance standards in the five more representative countries of our sample<sup>10</sup>.

Table 2: **Evolution of corporate governance in the five more representative countries of the sample**

Country	Year	Code
United States	2012	Principles of Corporate Governance
	2003	Final NYSE Corporate Governance Rules
	2002	Principles of Corporate Governance
	2002	Principles of Corporate Governance: Analysis & Recommendations
	1999	Global Corporate Governance Principles
	1997	Statement on Corporate Governance
Japan	2004	Principles of Corporate Governance for Listed Companies
	2001	Corporate Governance Principles (Revised)
	1997	Corporate Governance Principles
Canada	2013	Corporate Governance Guideline
	2003	Corporate Governance Guideline
	2001	Saucier Report
	1994	The Toronto Report: Guidelines for Improved Corporate Governance in Canada
Australia	2014	Corporate Governance Principles and Recommendations (Revised)
	2010	Corporate Governance Principles and Recommendations (Revised)
	2007	Corporate Governance Principles and Recommendations
	2003	Principles of Good Corporate Governance and Best Practice Recommendations
	2002	Horwath - Corporate Governance Report
	1995	AIMA Guide & Statement of Recommended Practice for major ASX listed Companies
	1995	Bosch Report
United Kingdom	2014	The UK Corporate Governance Code
	2012	The UK Stewardship Code
	2010	The UK Stewardship Code
	2010	The UK Corporate Governance Code
	2002	The Hermes Principles
	2001	Code of Good Practice
	2000	Principles of Good Governance and Code of Best Practice

<sup>10</sup> For more Information see the website of European Corporate Governance Institute: [http://www.ecgi.org/codes/all\\_codes.php](http://www.ecgi.org/codes/all_codes.php)

Table 2: **Evolution of corporate governance in the five more representative countries of the sample**  
(cont.)

Country	Year	Code
United Kingdom	1998	Hampel Report
	1992	Cadbury Report

**Note.** The table presents the evolution of the corporate governance in the five countries more representative of the sample. The first column shows the country. The second column demonstrates the year and the third column indicates the written code.

### 2.1.3. Empirical studies

The corporate governance has received much attention and has been extensively studied in the empirical literature. Denis and McConnell (2003) studied the international corporate governance and identify two generations of studies. The first generation relates the specific mechanisms of corporate governance and firm value and the second generation relates the effects of the legal system and regulation on corporate governance and firm value. The first generation focuses on specific mechanisms of corporate governance, in particular the firm-level control mechanisms. The firm-level corporate governance mechanisms can be also divided in internal mechanisms and external mechanisms, for example board and equity ownership structure are considered as internal mechanisms and market of corporate control as external governance mechanisms. When we analyse the mechanism “market for corporate control” we analyse the actions undertaken by the firm to respond to the control of the market, so in this sense this governance mechanisms can be classified as a firm-level governance mechanism. This generation of studies seeks to answer the two questions presented in table 3.

Table 3: **Key questions and internal mechanisms of governance of first generation of studies**

Key questions	Internal Mechanisms
“Does that mechanism affect the firm performance <sup>a</sup> ?”	Ownership Structure
“Does that mechanism affect the particular decisions made by firm?”	Board of directors
	Market for corporate control

**Note.** Source: Denis, D. K., & McConnell, J. J. (2003). International Corporate Governance. *Journal of Financial & Quantitative Analysis*, 38(1), 1–36.

<sup>a</sup> Performance is typically measured by profitability or relative market value.

Several studies have been made to relate internal mechanisms of corporate governance and firm value (Agrawal & Knoeber, 1996; Lemmon & Lins, 2003; Mitton, 2002). Mitton's (2002) research is a reference of the first generation. He studied the impact of corporate governance on the East Asian financial crisis through data from 398 firms, from Indonesia, Korea, Malaysia, Philippines and Thailand during the financial crisis from 1997-1998. The author used three variables to measure corporate governance - disclosure quality, ownership structure and corporate diversity - and found a positive relationship between the corporate governance variables and firm value. The presence of a strong blockholder was beneficial during the crisis, consistent with the hypothesis that a strong blockholder has the incentive and power to prevent expropriation of minority shareholders.

The second generation of studies in the field of corporate governance related the effects of the legal system and regulation on corporate governance and firm value. These issues have a small role in the first generation. The first research point by Denis and McConnell (2003) as a pioneer to the second generation is the work "Law and Finance" written by La Porta *et al.* (1998). Through the analysis from forty-nine countries, they confirm that shareholders and creditors have different legal protection consonant the country law. The stronger legal system favors minority shareholders against managers or dominant shareholders in the corporate decisions. They found that countries with origin in the common law tend to protect the investors more than countries with origin in the civil law. The legal protection of investors justifies the differences in power concentration, capital markets, dividend policy and access to external financing through the legal protection of investors (La Porta *et al.*, 2000a).

La Porta *et al.* (1998) and Djankov, La Porta, Lopez-de-Silanes and Shleifer (2008) developed throughout his work two indices, the antidirector rights index and the anti-self dealing index to measure the legal protection of minority shareholders against the expropriation by corporate insiders. These indices have been extensively used in the literature to proxy for corporate governance (Chang & Noorbakhsh, 2009; Esqueda, 2016; Fidrmuc & Jacob, 2010; Mitton, 2004; Shao, Kwok, & Guedhami, 2010; Wang & Esqueda, 2014).

The third generation of studies is based in the quality of corporate governance, measured by corporate governance indices (e.g, Aggarwal *et al.*, 2009; Brown & Caylor, 2006; Fauver &

McDonald, 2015; Gompers, Ishii, & Metrick, 2003; Jiraporn *et al.*, 2011; Klapper & Love, 2004). The construction of the indices constitutes analysis in a set of mechanisms of corporate governance. The objective is to answer this question: “How a set of various governance mechanisms influence the company's performance?” (Reis, 2015, p. 19).

These studies arise from gaps left by the first and second generations. Firms are dynamic entities, as such, fits their governance policies. The investor protection may not be enough to explain the differences in governance policies. The firms can themselves develop their investor protection mechanisms, for example, through rights by increasing disclosure, selecting an independent board and imposing mechanisms to prevent management and shareholders to engaging in expropriation (Klapper & Love, 2004). There is a need to address a large number of internal and external mechanisms which explain the differences in corporate policies, both across countries as within the same country.

Reis (2015) pointed Black’ study as one of the first studies of the third generation. Black (2001) studied the corporate governance in Russia. The author used a sample data of twenty-one Russian firms and a corporate governance rating developed by a Russian investment bank, the *Brunswick Warburg*, in order to test whether inter-firm variation in corporate governance behaviour has a significant effect on market value in Russia. He found a strong positive correlation between firm value and governance quality. The author concludes that the corporate governance behaviour of the firm has a powerful effect on market value in a country where legal and cultural constraints on corporate behaviour are weak.

Klapper and Love (2004) focus their analysis on emerging markets. They use de index developed by *Credit Lyonnais Securities Asia*<sup>11</sup>, to study 374 firms in fourteen emerging markets during the year 1999. They found evidence that corporate governance has a positive impact in market value and firm performance. Consequently, a better quality of corporate governance is correlated with a superior operating performance and superior market valuation.

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<sup>11</sup> Credit Lyonnais Securities Asia is Asia’s leading and longest-running independent brokerage and investment group. The company provides equity broking and execution services, corporate finance and asset management services to global corporate and institutional clients.

Next, we will give more emphasis to this generation, since we will use this metrics in the present study. We will present the corporate governance measures, namely, the indices of corporate governance which have been exploited in the empirical literature.

#### **2.1.4. Company level corporate governance**

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Following the relevant literature review, we verify that there is a set of corporate governance indices used in various studies.

Black (2001) pointed as one of the first studies of the third generation, studied the corporate governance in Russia. He used a corporate governance rating developed by a Russian investment bank. *Brunswick Warburg* rated Russian companies on a scale 0 to 60, with higher number indicating a worse governance. This rating is classified in seven categories: disclosure and transparency; dilution through share issuance; asset stripping and transfer pricing; dilution through merger and restructuring; bankruptcy; limits on foreign ownership; management attitude toward shareholders and registrar affiliated with the company. Black (2001) found a positive relationship between firm value and governance quality in Russian firms. However, the sample data is the principal limitation of this study, once it is a very small sample.

Gompers *et al.* (2003) developed a governance index, the *G-Index*, as a proxy for the balance of power between managers and shareholders in each firms. The data for the construction of this governance index derived from *Investor Responsibility Research Center*<sup>12</sup> (IRRC). This dataset includes twenty-four different corporate governance provisions for about 1 500 firms, classified into five categories: delay (tactics for delaying hostile bidders), voting (voting rights); protection (director/officer protection); other (other takeover defences) and state (state laws). The index is scored from 0 to 24. The authors classified the least and greatest values of *G* in two portfolios, according to the management power. If the *G* assumes a value which is greater than or equal to 14, it is classified as “*Management Portfolio*” and it represents highest management power. In other words, the shareholders rights are weaker.

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<sup>12</sup> The Investor Responsibility Research Center Institute is a nonprofit research organization that funds environmental, social and corporate governance research, as well as research on the capital market context that impacts how investors and companies make decisions. The sample of IRRC firms is drawn from the S&P 500 and other large corporations and represents over 90% of total market capitalization on NYSE, AMEX, and NASDAQ.

If the *G* assumes a value which is less than or equal to 5, it is classified as “*Shareholders Portfolio*” and it represents a lowest management power that it is, the shareholders rights are stronger. The authors verify that corporate governance is highly correlated with stock return and firm value. The *G-Index* was later applied by other authors (e.g., Harford *et al.*, 2008; Jiraporn & Ning, 2006).

The index developed by *Credit Lyonnais Securities Asia* is used in research in emergent markets. The CLSA is constituted by 495 firms from twenty-four countries distributed in Asia, Latin America and East Europe. The analysts assess the performance of emerging market firms on fifty-seven issues, in seven areas of corporate governance: management discipline; transparency, independence, accountability, responsibility, fairness and social responsibility. The rating goes from 1 to 100 and a higher score indicates stronger corporate governance. Mitton (2004) used this index to analyse the impact of corporate governance in corporate dividend policy. The author studied 365 firms from nineteen emerging countries in 2001 and concludes that firms with higher corporate governance ratings have higher dividend payouts.

In the United States markets, four premier rating agencies exist: *The Corporate Library* (TCL), *Institutional Shareholder Services* (ISS), *Governance Metrics International* (GMI), and *Standard & Poor's* (S&P) (Ertugrul & Hedge, 2009). In 2010, GMI has merged with TCL<sup>13</sup>, and origin the *Governance Holdings Co.* In 2014, the MSCI bought the *Governance Holdings Co.*, allowing them to deliver a more comprehensive suite of products and services to their clients<sup>14</sup>.

Durnev and Kim (2007) used the CLSA index and they used also the Standard & Poor's disclosure scores as a robustness check. The index construction is based on information from 573 firms in sixteen emerging markets and three developed markets in 2000. The index is composed of three sub categories: ownership, disclosure and board.

The corporate governance index developed by ISS is considered the most complete and representative index of corporate governance. The ISS database covers approximately

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<sup>13</sup> Information collected from <http://www.corpgov.net/2010/07/tcl-gmi-merge/> in February 22, 2016

<sup>14</sup> Information collected from <https://www.msci.com/our-story> in February 22, 2016

38.000 companies in 115 countries yearly<sup>15</sup>. In 2002, ISS provided the *Corporate Governance Quotient* (CGQ). The CGQ is composed by sixty-one items of corporate governance classified by eight categories: board of directors, audit, statutory provisions, and country of origin of the company, remuneration of director's general and executive directors, stock ownership by directors and qualifications of members of management. The rating goes from 1 to 100 and a higher score indicates that company has a better quality of governance than the others companies that make up the CGQ.

The ISS data of corporate governance, namely the attributes of CGQ, led to the construction of other indices. For example, Brown and Caylor (2006) used a sample data from 1.868 firms in the U.S, in 2002, in order to analyse the relationship between corporate governance and firm performance. They constructed the *Gov-Score*, a governance index based on fifty-one ISS governance factors spanned over eight categories: audit, board of directors, charter/bylaws, director education, executive and director compensation, ownership, progressive practices, and state of incorporation. They codify the items using the information in ISS corporate governance<sup>16</sup> whether the firm's governance is minimally acceptable – coded 1- or unacceptable -coded 0. Additionally, the authors created another index – *Gov 7* - composed by seven items to drive the relation between *Gov-Score* and firm valuation. In this index the first two attributes represent external governance<sup>17</sup> and the other five are internal governance factors<sup>18</sup>. They show the *Gov-Score* has a positive relationship with firm value. The authors also compare the *Gov-Score* with *G-Index* developed by Gompers *et al.*, (2003) and concluded that their index is more complete than *G-Index*.

Aggarwal *et al.* (2009) research aimed to compare the firm level governance between the U.S. and foreign countries. As a measure of firm level corporate governance quality, they constructed an index, based on CGQ attributes, called the *Gov-Index*. They considered forty-four attributes common to U.S and foreign companies. The attributes they selected cover four broad subcategories: board, audit, anti-takeover and compensation as well as ownership. The value of 1 is awarded to a governance attribute if the company meets the threshold level for that standard and 0 otherwise. The rating is expressed as a percentage from 0 to 100.

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<sup>15</sup> Information collected from <http://www.issgovernance.com/about/about-iss/> in February 22, 2016

<sup>16</sup> ISS Corporate Governance: Best Practices User Guide and Glossary (2003).

<sup>17</sup> The two attributes of external governance are part of the Bebchuk *et al.* (2005) entrenchment index.

<sup>18</sup> The authors regard that in five internal governance factors, none of which has been considered by prior literature linking governance to firm value.

They analysed a sample data of 2.234 non U.S. firms and 5.296 U.S. firms covering twenty-three developed countries for year 2004, so they found strong evidence that foreign firms invest less in internal governance mechanisms that seek to increase the power of minority shareholders than comparable U.S. firms do.

In 2010, the CGQ was discontinued and replaced by the *Governance Risk Indicators* (GRID) (Reis, 2015). In 2013, the GRID was replaced by the *Corporate Governance Quickscore*. *ISS Governance Quickscore's global* covers approximately 5.520 companies in thirty markets, namely the Americas, Europe and Africa, Asia and Australia<sup>19</sup>. There are nearly 200 analysed factors, with the specific factors under analysis varying by region, distributed by four categories: board structure, compensation/remuneration, shareholder rights, and audit & risk oversight. *QuickScore* uses a numeric score from 1 to 10 that indicates a company's governance risk. A score of 1 indicates relatively lower governance risk, and, conversely, a score of 10 indicates relatively higher governance risk. In other words, a scale of 1 indicates better governance quality; on the other hand, a scale of 10 indicates a worse governance quality.

Reis (2015) considered a sample data from 252 companies in sixteen European countries in 2013, to analyse the impact of corporate governance structure on earnings management. The author used the *Quickscore* to measure the corporate governance quality level and he considers the discretionary accruals as a proxy for earnings management. He found a significant negative relationship between corporate governance and earnings management, that is, a high governance quality is associated with a low level of earnings management.

Thomson Reuters<sup>20</sup> offers a set of products and services distributed by eight areas<sup>21</sup>. Namely, *ASSET4 Corporate Governance Performance* (ASSET4) is an index of governance,

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<sup>19</sup> The Americas include Canada, U.S and Latin America Region. Europe and Africa include the Nordic Region, Anglo Region, Western Europe, Southern Europe Germanic Region and African Region. The Asia and Australasia include the Asia pacific Region, Japan, Russia, India, South Korea and Australasia Region. Information collected from <http://www.issgovernance.com/governance-solutions/investment-tools-data/quickscore/> at February 23, 2016.

<sup>20</sup> Thomson Reuters is a news agency that provides professionals with the intelligence, technology and human expertise they need to find trusted answers. They develop and deliver information and solutions for professionals, connecting and empowering global markets. They enable professionals in the financial and risk, legal, tax and accounting, intellectual property and science and media markets to make the decisions that matter most. For more information please see: <http://thomsonreuters.com/en/about-us.html>

<sup>21</sup> Products and Services: Financial, Risk Management Solutions, Intellectual Property, Legal, Reuters News Agency, Pharma & Life Sciences, Scholarly and Scientific Research and Tax & Accounting.

developed by Thomson Reuters together with S-Network Global Indexes in the category of Environmental, Social and Governance Indices (ESG). The corporate responsibility indices cover 4.300 companies. The ratings are based on more than 280 key performance indicators (KPI’s) and they offer available ratings for separate pillars and composites: Environmental Performance, Social Performance, Governance Performance and ESG<sup>22</sup>.

According to Thomson Reuters, “The corporate governance pillar measures a company's systems and processes, which ensure that its board members and executives act in the best interests of its long term shareholders. It reflects a company's capacity, through its use of best management practices, to direct and control its rights and responsibilities through the creation of incentives, as well as checks and balances in order to generate long term shareholder value.” (<http://thomsonreuters.com/en/about-us/corporate-responsibility-inclusion/esg-performance.html>, consulted at February 23, 2016).

The ASSET4 measure is an equally weighted calculation based upon relative firm performance and includes indicators based on five categories and sixty eight KPI’s. Table 4 shows the five categories which comprise the ASSET4.

Table 4: **Categories of ASSET 4 Corporate Governance Performance**

Index	Categories	Number of KPI’s by category
ASSET4 Corporate Governance Performance	Board Functions	15
	Board Structure	17
	Compensation Policy	13
	Shareholder Rights	11
	Vision and Strategy	12

**Note.** The table presents the five categories of ASSET 4 Corporate Governance Performance. The first column indicates the name of the index of corporate governance. The second column presents each category of the index. The third column shows the number of KPI’s by category.

The ranking is calculated so as to be comparable between companies. Thomson Reuteurs consider Governance KPI’s are benchmarked regionally. Governance ratings are assigned based on a company’s relative performance within nine separate regions<sup>23</sup>.

<sup>22</sup> For more information see: <http://thomsonreuters.com/en/products-services/financial/market-indices/corporate-responsibility-indices.html> consulted at February 23, 2016

<sup>23</sup> USA and Canada, Europe, Asia (ex Japan), Japan, Oceania, Latin America, Africa, Middle East, Russia and Ukraine.

Each KPI is scored within regional model between zero and one. This process aims to calculate the weighting that each KPI<sup>24</sup>. Each KPI are also classify in terms of “polarity” meaning whether a higher score was “bad” or “good.”. Each company’s governance raw score is then determined by the sum of the products of each KPI’s dynamically scaled value and its weight. The rating is expressed as a percentage from 0 to 100. A high level indicates a high quality of governance.

Fauver and McDonald (2015) in their study, namely “*Culture, agency costs, and governance: International Evidence on Capital Structure*”, used the ASSET4 to measure the firm level corporate governance quality level. With a sample data of 12.963 firms from all stock of G20 nations, between January 1, 1995 and December 31, 2009. They found that firm’s governance and national culture impact firm’s capital structure choices and also that there exist a markedly different impact in emerging versus developed nations.

Throughout this chapter we analysed the many different metrics of firm level corporate governance, namely, the main indices present in the literature. We can conclude that, in the literature, there is no unique index or a best index to measure corporate governance. Corporate governance is difficult and complex to measure and it depends on the categories that underlie.

## **2.2. Dividend policy**

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The “distribution decisions, being a component of the compensation of investors are a constant financial worry within companies” (Fernandes & Ribeiro, 2013, p. 1). The firm dividend policy is based on strategic decisions, namely the remuneration of shareholders or the reinvestment of capital (Fernandes & Ribeiro, 2013).

The empirical literature proposes a number of explanations around the dividend policy. Similar to corporate governance, there are evidence to the relevance of dividends to mitigate

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<sup>24</sup>In order to determine the weight weights assigned to the sixty-eight KPIs across the nine regions the following criteria were used: (1) relevance to the KPI to the region; (2) percentage of companies in region reporting that KPI; (3) range, skewness, and standard deviation of that KPI; (4) independent information content; (5) objective measurability of the KPI; (6) ability to confirm statistical results with published research In the governance pillar, vision and strategy KPIs have lower weights than key metrics related to shareholder rights, board structure, and disparities in firm compensation packages.

agency problems (e.g., Easterbrook, 1984; Jensen & Meckling, 1976; La Porta *et al.*, 2000b; Mitton 2004). Dividends align the interests of shareholders and managers as well as explain the agency costs. Dividend exists because it influences the financials companies' policies and they are a solution to reduce agency problems, through the reduction of the available cash for managers (Easterbrook, 1984).

Fama and French (2001) studied the incidence of dividend payments during the period 1926 – 1999 in U.S. They verify that companies tend to pay dividend when they are established, because the new companies have high grow opportunities. The results are in agreement with the results obtained by La Porta *et al.* (2000). Also Mitton (2004) found a negative relationship between the growth opportunities and dividends paid.

DeAngelo, DeAngelo and Stulz (2006) claim that the dividends are higher when the earnings present a high proportion due to investment in equity. They found a relationship between dividends and the capital mix, controlling for profitability, growth, firm size, total equity, cash balances and dividend history. This result is consistent with life-cycle theory proposed by DeAngelo and DeAngelo (2006).

Denis and Osobov (2008) examine the empirical determinants of dividend payment in the US, Canada, UK, Germany, France, and Japan over the period 1994 – 2002. The authors conclude that the dividends are affected by firm size, profitability, growth opportunities, and the earned/contributed equity mix. The results show that larger firms, more profitable firms, and firms with a greater proportion of earned equity tend to pay more dividends.

Firm's dividend policy is affected by factors such firm size, growth opportunities, leverage, profitability, business risk, signalling incentives and corporate governance (e.g., Aivazian *et al.*, 2003; Denis & Osobov, 2008; Jiraporn *et al.*, 2011; Mitton, 2004).

### **2.2.1. Dividend policy and corporate governance**

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Corporate governance and dividend policies have a close relationship, that is to say, both are evidenced in literature to mitigate agency problems, which result from the conflict of interest between managers and shareholders. According to some studies, the dividend policies aim to minimize the agency problems between managers and shareholders. (Easterbrook, 1984).

La Porta *et al.* (2000b) identified two agency models. The “outcome model” and the “substitute model”. The “outcome model” considers dividends as a result of mechanisms of legal protection. The minority shareholders use those mechanisms to extract cash from the company. In this line, can be predicted a positive relationship between the investor protection and the firm dividend policy. Firms with better corporate governance pay higher dividends to decrease managers’ expropriation. Regarding to the “substitute model”, they consider the dividend as a substitute of legal protection. Firms with weaker legal protections of minority shareholders pay more dividends to establish their reputation and compensate minority shareholders. Contrary to the “outcome model”, it is expected a negative relationship between the investor protection and dividend policy. The authors analysed 4.103 companies from thirty-three countries during 1989-1994 and use the *Antidirectors rights index* as a proxy of corporate governance quality. The results support the “outcome model” of dividends. The author also conclude that firm dividend policies vary across legal regimes. Firms in common law countries, where investor protection is better, make higher dividend payouts than firms in civil law countries.

The relationship between corporate governance and dividend policy has been studied, and its results are based mainly on these two models. Table 5 shows the empirical evidence of the impact of corporate governance in dividend policy.

Table 5: **Impact of corporate governance in dividend policy**

<b>Empirical Studies</b>	<b>Governance</b>	<b>Relationship</b>	<b>Agency Model</b>
Gugler and Yurtoglu (2003)	Ownership and performance	Positive	Outcome
La Porta <i>et al.</i> (2000b)	Investor protection	relationship	model
Mitton (2004)			
Mitton (2004)	Firm level Corporate Governance		
Jiraporn <i>et al.</i> (2011)			
Marques (2013)			
Jiraporn and Ning (2006)	Firm level Corporate Governance	Negative	Substitute
Harford <i>et al.</i> (2008)		relationship	model
Officer (2006)	Internal and External Governance variables		

Table 5: **Impact of corporate governance in dividend policy** (*cont.*)

<b>Empirical Studies</b>	<b>Governance</b>	<b>Relationship</b>	<b>Agency Model</b>
Esqueda (2016)	Investor protection Law Ownership	Negative relationship	Substitute model

**Note.** The table represents the empirical evidence of impact of corporate governance in dividend policy. The first column identifies the empirical studies. The second column identifies the proxy of corporate governance used by the authors. The third column presents the relationship found between corporate governance and dividend policy. The fourth column shows the model inherent.

Such as La Porta *et al.* (2000b), Mitton (2004) also obtained results that support the outcome model. He analysed 365 firms from nineteen emerging countries from 2001 and showed a positive relationship between corporate governance and dividend policy. Thus, firms with better quality of corporate governance have higher dividend payouts. To proxy for corporate governance he used two variables: investor protection measured by *Antidirector index* and the CLSA firm level corporate governance. Both variables have strong explanatory power in determining dividends.

Jiraporn *et al.* (2011) based their study in agency theory and studied how the quality of corporate governance affects the dividend policy. The authors used the database from ISS to obtain data from 2001 to 2004. They used the *Gov-Score index*<sup>25</sup> as a primary metric of governance and the *ISS-score* as a supplementary index to confirm the results. They concluded that firms with strong governance pay larger dividends than firms with weak governance, and the probability to pay dividends is higher when firms exhibit better governance. These results are consistent with the outcome model. Also Marques (2013) corroborates this hypothesis in her study about 413 companies from seventeen countries in 2010, in the Western Europe.

The “outcome model” expresses the dividend policy as a result of good policies of governance. However, the literature also shows the dividends as a substitute for good governance practices. Dividends are used in order to reduce the agency problems between

<sup>25</sup> Brown and Caylor (2006) constructed the *Gov-Score*, a governance index based on 51 ISS governance factors distributed in 8 categories, to analyze the relationship between corporate governance and firm performance.

managers and shareholders, replacing the implementation of mechanisms of good governance. Indeed, Officer (2006) corroborates the substitute hypothesis. He used internal and external governance characteristics<sup>26</sup> and found that the dividend payments replace other forms of good governance.

Jiraporn and Ning (2006) using sample data from the IRRC and the *G-Index*, developed by Gompers *et al.* (2003), as a proxy of governance index found evidence that the dividend payouts are inversely related to the strength of shareholders rights. According to the “substitute model”, firms where shareholder rights are weaker try to establish a good reputation not to take advantage of shareholders through dividend payment. Dividends serve as signalling to the financing of the company in the markets, that is, the distribution of dividends is a way to attract external investors.

Using different metrics of corporate governance<sup>27</sup>, Harford *et al.* (2008) found that firms with weak shareholders rights tend to increase dividends, and firms with weaker corporate governance have smaller cash reserves.

More recently, Esqueda (2016) analysed sample data from 6.198 U.S. cross-listings companies, included all firms from countries considered as emerging or developing economies from 1990 to 2010. He relied in country law, *Antidirector rights index* and insider ownership and the results support the substitute model of dividends. However, he found that the outcome model of dividends is supported in this case when cross-listings are controlled by insiders. Therefore, dividend distributions and the likelihood to pay dividends increase following U.S. cross-listings.

The metrics of corporate governance used in the empirical studies differ, that is to say, some studies use more than a metrics as governance proxy (Esqueda, 2016; Harford *et al.*, 2008; Jiraporn *et al.*, 2011; Mitton, 2004). However, the results are consistent with the two dividend models.

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<sup>26</sup> To proxy for corporate governance he used internal mechanisms – board size and composition – and external mechanisms - takeover defenses, ownership by block holders and activist investors.

<sup>27</sup> Harford *et al.* (2008) used metrics of governance based on antitakeover provisions and inside ownership, namely the *G-Index*, *Entrenchment Index*, inside ownership, institutional ownership, pay sensitive, board size and board independence.

## **2.3. Culture**

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The principal goal of the present research is to verify the impact of corporate governance and cultural factors in corporate dividend policies. Previously, we presented the concept of governance, the metrics we will use and the relevant literature in dividend policies. In this point, we present the concept of culture and the empirical evidence for the relationship between corporate governance and culture.

Cultural factors that have been suggested can explain differences in corporate policies across countries.

Culture can affect finance through at least three channels. First, the values that are predominant in a country depend on its culture [...] Second, culture affects institutions. For instance, the legal system is influenced by cultural values. Third, culture affects how resources are allocated in an economy (Stulz & Williamson, 2003, pp. 316-317).

### **2.3.1. Concept**

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Some empirical literature presents the religion, ethnic, language and the proximity of the countries as proxies for culture (Grinblatt & Keloharju, 2001; Guiso, Sapienza, & Zingales, 2006; Stulz & Williamson, 2003).

Licht, Goldschmidt and Schwartz (2005) consider that the religion as a proxy for culture could be not adequate, because it doesn't take into account the richness of cultural differences. They measure culture based in cross-cultural psychology, whose objective is to analyse and generating data that describe national cultures through dimensions values.

Following Licht *et al.* (2005), we give relevance to the definition presented by Hofstede (1983, 2002, 2010) and Schwartz (1999), two pioneering authors in the development of cultural dimensions.

Culture “is collective mental programming: it is that part of our conditioning that we share with other members of our nation, region, or group but not with members of other nations, regions, or groups”(Hofstede, 1983, p.76).

To Schwartz (1999), culture is a set of shared values, practices, behaviours, norms that serve to guide people lives. “Culture reflects a complex of meanings, symbols, and assumptions about what is good or bad, legitimate or illegitimate that underlie the prevailing practices and norms in a society” (Licht *et al.*, 2005, p.233).

Summing up, culture is not more than a set of behaviours, values and habits that are transmitted throughout life, either by family or society, which differ depending on the country or region.

### 2.3.2. Cultural dimensions

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Hofstede (1983) and Schwartz (1999) were pioneers in the development of cultural dimensions and both based their research on the analysis of the influence of cultural values at work.

Hofstede analysed data collected from surveys of IBM<sup>28</sup> employees in different countries between 1967- 1971, and develops cultural dimensions for forty countries. He described the national culture of four different dimensions: *Individualism* versus *Collectivism*, large or small *Power Distance*, strong or weak *Uncertainty Avoidance* and *Masculinity* versus *Femininity* (Hofstede, 1983). Later, the author presented the *Long Term Orientation* versus *Short Term Normative Orientation* dimension (Hofstede, 2002; Hofstede & Minkov, 2010). In 2010, Hofstede presented in his book *Culture and Organizations – Software of the Mind* data from seventy-six countries and five cultural dimensions. Nowadays, the Hofstede model of national culture consists of six dimensions<sup>29</sup> presented in table 6.

The country scores on the dimensions are relative and assume values from 0 to 100 for each dimension. A higher value signifies a high propensity to this dimension in the country. For example, in the *Power Distance* scale, 0 means a small *Power Distance* and 100 means a large *Power Distance*. In the case of *Individualism* versus *Collectivism*, 0 means a strongly collectivist society and 100 means a strongly individualistic society.

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<sup>28</sup> International Business Machines Corp. is a global technology and innovation based in Armonk, New York, USA. It is the largest employer in the world of technology and consulting industry, with approximately 427.000 employees serving clients in 170 countries. For more information see: <http://www.ibm.com/ibm/us/en/>

<sup>29</sup> Information collected from Hofstede Website: <http://geert-hofstede.com/national-culture.html> on February 25, 2016

Table 6: Hofstede’s cultural dimensions

Author	Dimension
Greet Hofstede	Power Distance Index Individualism versus Collectivism Uncertainty Avoidance Index Masculinity versus Femininity Long Term Orientation versus Short Term Normative Orientation Indulgence versus Restraint

In the same order, to answer the question “How is the meaning of work in the life of individuals influenced by prevailing cultural values priorities?”, Schwartz (1999, p. 24) developed a theory of the value dimensions. Similar to Hofstede (1983) in that theory, the national culture can be compared. The sample data were obtained through a survey in forty-nine countries. This questionnaire was based on fifty-six individual values “as guiding principles in My Life” (Schwartz, 1999, p. 30), however, only forty-five individual values were considered to be common to all countries under review. Schwartz (1999) used data from 35.000 respondents from 122 samples. He identifies seven types of values<sup>30</sup> from three bipolar dimensions. The table 7 presents the Schwartz cultural level value types.

Table 7: Schwartz’s culture level value types

Author	Dimension
Shalom Schwartz	Autonomy versus Conservatism <sup>a</sup> (Intellectual Autonomy/Affective Autonomy) Hierarchy versus Egalitarianism Mastery versus Harmony

**Note.** Adapted from Schwartz, S. (1999). A Theory of Cultural Values and Some Implications for Work. Applied Psychology: An International Review, 48(1), 23–47.

<sup>a</sup> In later studies, the name of this dimension has been replaced by Embeddedness (Schwartz, 2006)

The rating is the mean importance of the value type. For the rating calculation, Schwartz (1999) selected a representative sample from the dominant cultural group in each country<sup>31</sup>. To compute the mean importance of a value type, he ascertain the importance of members

<sup>30</sup> “Conceptions of the desirable that guide the way social actors [...] select actions, evaluate people and events, and explain their actions and evaluations” (Schwartz, 1999, pp. 24-25)

<sup>31</sup> His objective is to obtain samples largely from dominant cultural group in each nation, because when comparing the values of representative national sample, it is necessary to control demographic differences between nations. Therefore, he considers urban school teachers of the most common types of school systems for the 44 nations. He considers the teachers due to the fact that they have an important role in value socialization, and they reflect the mid-range of prevailing value priorities in most societies.

of the sample from the national attributes. Each value type is composed by a set of values that represent that type<sup>32</sup>.

Hofstede (1983) and Schwartz's (1999) projects differ in several aspects. However, the results obtained in the group of countries around the world are very similar<sup>33</sup>.

Culture can be interpreted from different ways, namely, religion, language, set of values and norms. There are some studies that use psychology to measure culture. We present two of these studies, namely the Hofstede cultural dimensions. The cultural variables are described in methodology.

### **2.3.3. Culture and corporate governance**

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Culture is a set of behaviours, values and habits that are transmitted, that is to say, we can expect its influence in the way the companies are organized and also in the quality of governance.

“Culture is often invoked as a reason for differences between various national regimes of insider trading regulation” (Licht, 2001, p. 21). Cultural factors should be taken into account in the design and analysis of systems of government, since they have a high weight and cannot be considered only a residual variable.

The literature also points to a relationship between cultural factors and agency problems, in that the existence of agency problems and their resolution differs across countries and depends on the adaptation of the mechanisms of corporate governance to each culture. (Licht, 2001) “[...] agency problem in essence is a potential adversarial relation between shareholders’ and management’s interests. The extent of this problem depends on shareholders’ perception of value-reducing aspect of management’s actions which can vary across different national cultures.”(Chang & Noorbakhsh, 2009, p. 324).

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<sup>32</sup> For example, Hierarchy is the average of the ratings of authority, wealth, social power, influential and humble. The importance of Affective Autonomy is the average of the ratings of varied life, exciting life, and pleasure and enjoy life.

<sup>33</sup> For more information see the researches: Hofstede, G. (1983). The cultural relativity of organizational practices and theories. *Journal of International Business Studies*, 14(2), 75–89. Schwartz, S. (1999). A Theory of Cultural Values and Some Implications for Work. *Applied Psychology: An International Review*, 48(1), 23–47.

With a sample data from 2.234 non U.S firms and 5.296 U.S firms of the year 2004, Aggarwal *et al.* (2009) studied the differences in governance practices between the U.S and foreign firms. The authors found that culture and norms play an important role in governance practices and that these cultural differences are substitute for some formal governance attributes.

Licht *et al.* (2005) used the *LLSV* data covering forty-nine countries in 1993 and found revealing correlations between national cultural values and indices of shareholder voting rights and creditor rights. To proxy for culture, they used the Schwartz' cultural value dimensions and Hofstede's cultural dimensions. They found that national culture may obstruct reform and may induce path dependence in corporate governance systems. Corporate governance regimes should combine legal with cultural approach, once national culture promotes assertiveness in reconciling conflicting interests.

## **2.4. Culture, Corporate Governance and Dividend Policy**

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Previous research have examined the importance of culture in capital structure (Fauver & McDonald, 2015; Gleason *et al.*, 2000), leverage decisions (Wang & Esqueda, 2014), momentum strategies (Chui, Titman, & Wei, 2010), firm cash holding (Chang & Noorbakhsh, 2009) and in management practices (Hoorn, 2014).

The principal question we seek to answer is how national culture and corporate governance influence the corporate dividends policies. The interest surrounding the influence of culture and corporate governance in the dividend policy has been growing and there are some studies that have addressed this issue. However, the proxy for corporate governance is mainly the country level investor protection. Our study therefore aims to use an index of corporate governance, which aims to measure the quality of governance by company.

In this point we present the empirical evidence of corporate governance and culture in dividend policy. First, we present the empirical evidence of culture in dividend policy. Table 8 shows the relationship between culture and dividend policy.

Table 8: Relationship between cultural variables and dividend policy

Cultural Variables	Authors	Relationship	
		Signal	Significant
Individualism	Fidrmuc and Jacob (2010)	Positive	Yes
	Zheng and Ashraf (2014)	Positive	Yes
Power Distance	Fidrmuc and Jacob (2010)	Negative	Yes
	Zheng and Ashraf (2014)	Negative	Yes
Uncertainty Avoidance	Khambata and Liu (2005)	Negative	Yes
	Fidrmuc and Jacob (2010)	Negative	Yes
	Bae <i>et al.</i> (2012)	Negative	Yes
	Zheng and Ashraf (2014)	Negative	Yes
Masculinity	Bae <i>et al.</i> (2012)	Negative	Yes
	Zheng and Ashraf (2014)	Positive	Yes
Long Term Orientation	Khambata and Liu (2005)	Negative	Yes
	Bae <i>et al.</i> (2012)	Negative	Yes
	Zheng and Ashraf (2014)	Negative	Yes
Indulgence	Zheng and Ashraf (2014)	Positive	Yes
Conservatism	Shao <i>et al.</i> (2010)	Positive	Yes
Mastery	Shao <i>et al.</i> (2010)	Negative	Yes
Intellectual and affective autonomy	Fidrmuc and Jacob (2010)	Positive	Yes

**Note.** The table presents the relationship between culture and dividends policy. The first column shows the cultural variables. The second column identifies the empirical evidence. The third column presents the relationship and the level of significance obtained in each study.

Khambata and Liu (2005) analysed fourteen Asia-Pacific economies between 1992 and 2003. They constructed a risk aversion index based on two Hofstede's cultural dimensions, specifically uncertainty avoidance and long-term orientation. The results show that countries with high risk aversion managers prefer to keep more cash on hand and pay less dividends. Therefore, firms in countries with higher uncertainty avoidance and long-term orientation show lower dividend payout ratios. Bae *et al.* (2012) obtained identical results. Using the uncertainty avoidance, masculinity and long term orientation, they found a negative relationship between culture and dividends paid. They analysed eleven industries, to counting a total of 112,295 firms-year observations in thirty-three countries in the period 1993-2004. Zheng and Ashraf (2014) used the same three cultural dimensions to analyse the dividend paid and the likelihood to pay dividends from banking. With a sample data of banks from fifty-one countries during the period from 1998 to 2007, their results are consistent with Bae *et al.* (2012). They found that firms in countries with higher uncertainty avoidance and long-term orientation show lower dividend payout and lower propensity to pay

dividends. Unlike, they found positive relationship between masculinity and the both, dividend paid and propensity to pay dividends. Additionally, they use the remaining cultural variables – individualism, power distance and indulgence – to confirm the influence of culture in dividend policies. They found a negative relationship with power distance and a positive relationship with individualism and indulgence.

Hofstede's cultural dimensions were also used by Fidrmuc and Jacob (2010). The authors extend the analysis of agency problems in the dividends policies, in order to cover the preferences and behaviours inherent to cultural values of economic agents. They analysed 5.797 companies from forty-one countries in 2004. The results show that firms in countries with high score on individualism and low score on power distance and uncertainty avoidance pay relatively higher dividends. The negative relationship between uncertainty avoidance and dividends is consistent with the results obtained by the authors mentioned above. Additionally, Fidrmuc and Jacob (2010) test their results with alternative proxy for culture, the Schwartz values dimensions. They replace the individualism by intellectual and affective autonomy and power distance by egalitarianism versus hierarchy. Intellectual and affective autonomy are both highly correlated with Hofstede's individualism dimension. The results show a positive and highly significant relationship, consistent with the first results. The dichotomy between egalitarianism and hierarchy captures similar societal characteristics and is highly negatively correlated. They found that egalitarian cultures have significantly higher dividend payout ratios and in hierarchical cultures dividend payout are generally lower. Again, the results were consistent.

The Schwartz value dimensions were also used by Shao *et al.* (2010) to proxy for culture. Their study explores how a nation's culture affects subjective perceptions of firm characteristics and legal institutions as determinants of firms' agency or asymmetric information problems. The sample data consists in 27.462 firm-year observations from twenty-one countries listed in Schwartz value dimensions, during the period 1995-2007. They found that conservatism is positively related to corporate dividend payout and mastery is negatively related to corporate dividend payout.

Regarding the impact of culture in dividends policy, it happens that culture is an important factor as a determinant of dividend policy. These studies provide strong support for the assertion that national culture influences corporate dividend policies.

The literature also extends the impact of corporate governance on the dividend policy, as we have reviewed previously. For example, Javakhadze, Ferris and Sen (2014) test the impact of corporate equity ownership structures, legal protection, national tax systems and national culture in dividend smoothing. The data consisted in 2,219 firms from twenty-four countries from 1999 to 2011. They found that firms in countries with low power distance, but high cultural individualism, masculinity and uncertainty avoidance tend to smooth dividends more. To proxy for governance, the authors use a set of mechanisms. To analyse how corporate governance structures affect the decision to smooth dividends, they use the *Gov-Index*, developed by Aggarwal *et al.* (2009). In order to analyse if dividend policy can also be seen as a substitute for the legal protection of investors, the authors use three proxies for governance: proportion of independent directors, natural logarithm of the number of independent directors and legal regimes. The results provide evidence that national culture has explanatory power about dividend smoothing beyond what is provided by firm characteristics, legal origins, and other country-level effects.

With regard to the relationship between culture and corporate governance in corporate dividend policy, the results are not consistent. Some studies point that corporate governance and cultural factors have complementary effects in dividends policies, while others consider that there are substitutes. Furthermore, other authors show that the inclusion of corporate governance does not decrease the effect of cultural factors in dividend policies.

Fidrmuc and Jacob (2010) found evidence that legal institutions and culture as a social institution have complementary effects on dividend payouts of firms across countries.

Bae *et al.* (2012) show that corporate governance and cultural dimensions are significantly and independently related with dividend policy. However, these two variables are interrelated. They test the interaction between uncertainty avoidance and masculinity with the investor protection and found a positive relationship, that is to say, the association between culture and dividends level varies with the strength of governance.

Fauver and McDonald (2015) show that better governance substantially reduces the cultural effects. In the other words, the effects of culture decrease when a firm has high levels of good governance. The effects of culture are significantly offset by better governance.

In contrast, Shao *et al.* (2010) obtained evidence that cultural differences have explanatory power in corporate dividend policies, even after controlling of corporate governance. After controlling for additional country-level variables, they continue to estimate strong relations between cultural variables and dividends.

Chang and Noorbakhsh (2009) found that in the presence of financial markets development and legal system variables, culture still matters due to the perception of the degree of agency problems. “Culture affects the management’s perception of the value of financial flexibility determined by the amount of available cash at hand and investors’ perception of the degree of agency problems”(Chang & Noorbakhsh, 2009, p. 325).

## **2.5. Conclusion**

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In this point, we present the relevant literature for our research. First, we explained the importance of corporate governance. We started by presenting the concept of corporate governance, the systems of governance based in Shleifer and Vishny (1997) and La Porta *et al.* (2000a) research, the empirical studies and finally we described several indices used in literature, to measure the company level corporate governance. Secondly, we presented some relevant literature surrounding corporate divided policy. We also presented some evidence of corporate governance effect in dividend policy. Thirdly, we defined culture and demonstrated the relevance of culture in corporate policies, namely in corporate governance structure. Lastly, we showed the relevant literature around the impact of culture and corporate governance in corporate dividend policies.

### 3. Sample Selection and Methodology

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In this chapter, we present the sample and data collection, as well as we describe the variables and develop the hypotheses to test. We also present the proposal model.

#### 3.1. Sample

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The original sample data is composed by 3 999 companies belonging to the main indices of forty-three countries<sup>34</sup>, which are classified as developed or emerging<sup>35</sup>. The country classification used considers Brazil, Chile, Colombia and Greece, nonetheless we exclude these countries because they were classified as countries with mandatory dividend policies by La Porta *et al.* (2000b).

To achieve the final sample, it was necessary to make some data selection that is shown in Table 9.

Table 9: **Sample Selection**

Selection Criteria	Sample Size
Companies belonging to the main indices by 43 countries	3 999
Non financial companies	3 077
Companies with available financial data	2 098
Companies with available governance data	1 232

We excluded 922 companies classified as financial companies and companies without industry information. We excluded 979 companies by lack of financial data and dividends data, as well as we excluded 866 companies without governance data. The final sample data is composed by 1 232 companies, belonging to the main indices by thirty-eight countries. The collected data are dated December 31, 2014. Table 10 shows sample composition by country.

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<sup>34</sup> Australia, Austria, Belgium, Canada, China, Czech Republic, Denmark, Egypt, Finland, France, Germany, Hong Kong, Hungary, Iceland, India, Indonesia, Ireland, Israel, Italy, Japan, Luxembourg, Malaysia, Mexico, Morocco, Netherlands, New Zealand, Norway, Peru, Philippines, Poland, Portugal, Russia, Singapore, South Africa, South Korea, Spain, Sweden, Switzerland, Taiwan, Thailand, Turkey, United Kingdom and United States.

<sup>35</sup> To classify countries as emerging or developed we use the Annual Country Classification Review developed by S&P Dow Jones Indices for the year 2014.

Table 10: Sample composition by country

Country	Classification	Index	Number of companies	% Sample
Australia	Developed	S&P/ASX 200	98	7.95%
Austria	Developed	ATX Prime	8	0.65%
Belgium	Developed	BEL 20	12	0.97%
Canada	Developed	S&P/TSX Composite	109	8.85%
China	Emerging	SSE 180	16	1.30%
Denmark	Developed	OMX Copenhagen 20	11	0.89%
Egypt	Emerging	EGX 30	2	0.16%
Finland	Developed	OMX Helsinki 25	20	1.62%
France	Developed	CAC 40	29	2.35%
Germany	Developed	DAX	22	1.79%
Hong Kong	Developed	Hang Seng	25	2.03%
Hungary	Emerging	BUX	3	0.24%
India	Emerging	Nifty 100	55	4.46%
Indonesia	Emerging	IDX Composite	18	1.46%
Ireland	Developed	ISEQ	7	0.57%
Israel	Developed	Tel Aviv 100	5	0.41%
Italy	Developed	FTSE MIB	9	0.73%
Japan	Developed	Nikkei 225	166	13.47%
Luxembourg	Developed	LuxX	3	0.24%
Malaysia	Emerging	FTSE Bursa Malaysia KLCI	18	1.46%
Mexico	Emerging	IPC	9	0.73%
Netherlands	Developed	AEX	16	1.30%
New Zealand	Developed	S&P/NZX 50	13	1.06%
Norway	Developed	OSE BX	8	0.65%
Philippines	Emerging	PSE 30	13	1.06%
Poland	Emerging	WIG Poland	11	0.89%
Portugal	Developed	PSI 20	5	0.41%
Russia	Emerging	RTS	15	1.22%
Singapore	Developed	STI_Straits Times Index	14	1.14%
South Africa	Emerging	FTSE/JSE	17	1.38%
South Korea	Developed	KOSPI	40	3.25%
Spain	Developed	IBEX 35	16	1.30%
Sweden	Developed	OMX 30	21	1.70%
Switzerland	Developed	SMI	14	1.14%
Taiwan	Developed	FTSE_TWSE Taiwan 50	20	1.63%
Thailand	Emerging	SET 100	17	1.38%
United Kingdom	Developed	FTSE 100	64	5.19%

Table 10: **Sample composition by country** (*cont.*)

Country	Classification	Index	Number of companies	% Sample
United States	Developed	S&P 500	283	22.97%

**Note.** The table shows the sample composition by country. The first column presents the country. The second column shows the country classification based on Dow Jones classification. The third column demonstrates the principal index of the country. The fourth column presents the number of companies by country and the fifth column present the percentage of firms by country.

The U.S are the most represented country with 22.97%, followed by Japan, with 13.47%. On the other hand, Egypt is the less represented country, with only 0.16%, followed by Luxembourg and Hungary with 0.24%.

The firms in our sample are distributed for twenty-six developed countries, represented by 1 038 companies, and twelve emerging countries, represented by 194 companies. Table 11 shows that distribution.

Table 11: **Sample distribution by country characterization**

Country characterization	Number of companies	% Sample
Developed	1 038	84%
Emerging	194	16%

The companies are classified by ten industries, for such, we use the *Industry Classification Benchmark* (ICB), collected from *Datastream*. Table 12 shows the sample composition by industry. We only present nine industries, because the Financial companies (industry code 8000) are excluded from our sample.

Table 12: **Sample composition by industry**

Industry code	Industry name	Number of companies	% Sample
0001	Oil & Gas	114	9.25%
1000	Basic Materials	131	10.63%
2000	Industrials	296	24.03%
3000	Consumer Goods	197	15.99%
4000	Health Care	83	6.74%
5000	Consumer Services	192	15.58%
6000	Telecommunications	61	4.95%
7000	Utilities	85	6.90%
9000	Technology	73	5.93%

The most representative industry is the Industrials, which represents 24.03% sample data, followed by the Consumer Goods with 15.99%. The less representative industry is Telecommunications, which represents 4.95% sample data, followed by Technology industry with 5.93%.

## **3.2. Data Collection**

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The principal goal of our study is to verify the impact of corporate governance and cultural factors in corporate dividend policy. Whereby, we need financial, governance and cultural data. The financial and governance data were collected from *Datastream* database. The collected data are dated December 31, 2014 because this is the last available year. The cultural variables are collected from Hofstede's website<sup>36</sup>. Data were collected in 2015, but the dimension score (named 3<sup>rd</sup> edition), dated from 2010, remains since then.

## **3.3. Variables**

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Now, we present the variables used in this study. We describe the variables and present the empirical studies that support our choice. Additionally, we explain more deeply our choices in terms of governance data and cultural dimensions.

To measure the dividend payout, our dependent variable, we use the total dividend paid divided by total assets. Following Fauver and McDonald (2015), we use the ASSET4 Corporate Governance Performance to measure the firm level corporate governance. To proxy for culture, we use three cultural dimensions, developed by Hofstede (Hofstede, 1983, 2002; Hofstede & Minkov, 2010). Following Bae *et al.*(2012), we use masculinity and uncertainty avoidance. Additionally, we test the sixth dimension developed by Hofstede in 2010, the indulgence. Previous studies didn't take this dimension into account. Only Zheng and Ashraf (2014) considered this dimension in their study about the relationship between national culture and dividend policy from banking. The authors test the indulgence on robustness tests. As control variables, we use the company size, leverage, and sales growth rate. Table 13 presents the description of variables and a few examples of empirical studies that have used the same specification for each one of the described variables.

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<sup>36</sup> Cultural variables collected from <http://geert-hofstede.com/countries.html> at October 20, 2015.

Table 13: Variable Description

Variable	Description	Empirical Studies
Dividend Paid/TA (DIV/TA)	Dividend paid divided by total assets. Collected from <i>Datastream</i> .	Aivazian <i>et al.</i> (2003) Shao <i>et al.</i> (2010) Jiraporn <i>et al.</i> (2011) Bae <i>et al.</i> (2012)
Governance Score: ASSET 4 Corporate Governance Performance (GOV)	Corporate governance score, developed by Thomson Reuters. ASSET4 measure is an equally weighted calculation based upon relative firm performance and includes indicators based on five categories and sixty-eight KPI's. The ASSET4 assume values of 0 to 100 when a low value indicates weak governance and a high value indicate strong governance. Collected from <i>Datastream</i> .	Fauver and McDonald (2015)
Cultural Dimension (CULTURE) - Masculinity (MAS) - Uncertain Avoidance Index (UAI) - Indulgence (IND)	The Hofstede model of national culture consists of six dimensions. The cultural dimensions represent independent preferences for one state of affairs over another that distinguish countries from each other. The country scores on the dimensions are relative and assume values of 0 to 100 for each dimension. A high value indicates a greater propensity of the country for that dimension. Collected from Hofstede website.	Khambata and Liu (2005) Chang and Noorbakhsh (2009) Fidrmuc and Jacob (2010) Shao <i>et al.</i> (2010) Bae <i>et al.</i> (2012) Zheng and Ashraf (2014)
Size (SIZE)	Natural log of total assets in the year 2014. Collected from <i>Datastream</i> .	Gugler and Yurtoglu (2003) Mitton (2004) Khambata and Liu (2005) Bae <i>et al.</i> (2012)
Leverage (LEV)	Total debt divided by total assets. Collected from <i>Datastream</i> .	Gugler and Yurtoglu (2003) Khambata and Liu (2005) Jiraporn <i>et al.</i> (2011) Bae <i>et al.</i> (2012)

Table 13: **Variable Description** (*cont.*)

Variable	Description	Empirical Studies
Sales Grow Rate (GROW)	Subtraction of total sales 2014 with total sales 2013 divided by total sales 2013. Collected from <i>Datastream</i> .	Mitton (2004) Khambata and Liu (2005) Jiraporn and Ning (2006) Bae <i>et al.</i> (2012)
Industry Code (INDUSTRY)	Dummy variable. If a company's main industry is classified into one of the following eight industries: 0001, 1000, 2000, 3000, 4000, 5000, 6000, and 7000, according to the 4-digit ICB classification; 0 otherwise. 4-digit ICB classification comprises nine nonfinancial industries. Collected from <i>Datastream</i> .	Marques (2013)
Country Classification (CLASSIFICATION)	Dummy variable. It takes the value of 1 if the company is located in an emerging country, 0 otherwise. Collected from Annual Country Classification Review developed by S&P Dow Jones.	Fauver and McDonald (2015)

**Note.** The table presents the variables description. In the first column the variable name is presented, the second column describes the variable and the source. The third column contains a few examples of empirical studies that have used the same specification for each one of the described variables

### 3.3.1. Firm level corporate governance

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With regard to firm level corporate governance, we use the index ASSET4 Corporate Governance Performance developed by Thomson Reuters. The ASSET4 measure is an equally weighted calculation based upon relative firm performance and includes indicators based on five categories and sixty-eight KPI's. The ASSET4 assume values from 0 to 100. A low value of the index indicates weak governance and a high value indicates strong governance. Table 14 presents the ASSET4 composition.

The comparison set of firms comprises all of the firms from ASSET4 (roughly 4000 firms). All these data were obtained through publically available sources and include information from annual reports, proxy filings, a firm's website, major news agencies, among other sources (Fauver & McDonald, 2015).

Table 14: ASSET4 Corporate Governance Performance composition: categories and key performance indicators

Categories	Key performance indicators
Board Functions	1. Audit Committee Expertise
	2. Audit Committee Independence
	3. Audit Committee Management Independence
	4. Board Attendance
	5. Board Meetings
	6. Compensation Committee Independence
	7. Compensation Committee Management Independence
	8. Implementation
	9. Improvements
	10. Monitoring
	11. Nomination Committee Independence
	12. Nomination Committee Involvement
	13. Nomination Committee Management Independence
	14. Nomination Committee Processes
	15. Policy
Board Structure	16. Background and Skills
	17. Board Diversity
	18. Board Member Affiliations
	19. CEO-Chairman Separation
	20. Experienced Board

Table 14: ASSET4 Corporate Governance Performance composition: categories and key performance indicators (cont.)

Categories	Key performance indicators
Board Structure	21. Implementation
	22. Improvements
	23. Independent Board Members
	24. Individual Re-election
	25. Mandates Limitation
	26. Monitoring
	27. Non-Executive Board Members
	28. Policy
	29. Size of Board
	30. Specific Skills
	31. Strictly Independent Board Members
	32. Term Duration
Compensation Policy	33. Board Member Compensation
	34. Compensation Controversies
	35. Highest Remuneration Package
	36. Implementation
	37. Improvements
	38. Individual Compensation
	39. Long Term Objectives
	40. Monitoring
	41. Policy
	42. Remuneration Structure
	43. Stock Compensation
	44. Stock Option Program
	45. Sustainability Compensation Incentives
	Shareholder Right
47. Available Articles of Association	
48. Implementation	
49. Improvements	
50. Majority Shareholders	
51. Monitoring	
52. Ownership	
53. Policy	
54. Share Structure	
55. Shareholder Controversies	
56. Voting Rights	

Table 14: ASSET4 Corporate Governance Performance composition: categories and key performance indicators (cont.)

Categories	Key performance indicators
Vision and Strategy	57. CSR Reporting Auditor
	58. Challenges and Opportunities
	59. GRI Report
	60. Global Compact Signatory
	61. Global Reporting
	62. Implementation
	63. Improvements
	64. Integrated Strategy
	65. Monitoring
	66. Policy
	67. Stakeholder Engagement
	68. Transparency

**Note.** Adapted from Thomson Reuters website and Datastream database consulted at February 16, 2016

The choice of this governance score was based on the fact that the index may not be thoroughly studied, there are available annual values for large number of companies and they are used in studies contemplating emerging and developed markets, namely the countries of our study.

### 3.3.2. Cultural variables

In the present research, we use the Hofstede cultural dimension as a proxy for culture. We use the Hofstede cultural dimensions because it has been demonstrated in literature its effectiveness in the results. Additionally, scores on the dimensions are available to a larger number of countries.

Geert Hofstede developed one of the most comprehensive studies. His research leaned on the influence of the culture values in the workplace. The data are collected from the IBM database between 1967 and 1973. These data cover more than seventy countries. Initially, Hofstede developed cultural dimensions for forty countries and later extended to fifty countries and three regions. In 2010, Hofstede presents in his book *Culture and Organizations – Software of the Mind* data from seventy-six countries.

The Hofstede model of national culture consists of six dimensions<sup>37</sup>. The cultural dimensions represent independent preferences for one state of affairs over another that distinguish countries from each other; therefore, the country score of the cultural dimensions reflects the relative positions versus other countries. These variables only make sense when used for comparison. The country scores on the dimensions are relative and assume values from 0 to 100 for each dimension. A high value indicates a greater propensity of the country for that dimension.

In our study, we use three cultural dimensions: Masculinity versus Femininity, Uncertainty Avoidance index and Indulgence versus Restraint. Table 15 presents the characterization of each dimensions.

Table 15: **Characteristics of Hofstede cultural dimensions**

Dimension	Characteristics
Masculinity versus Femininity	It refers to the distribution of roles between the genders. The masculinity represents a more competitive society, in which the achievement heroism is relevant, assertiveness and material rewards for success. The femininity represents the preference by modesty and cooperation.
Uncertainty Avoidance Index	This dimension is related to the level of stress in a society in the face of an unknown future, defined as the extent to which the members of a culture feel threatened by uncertain or unknown situations.
Indulgence versus Restraint	It reflects the gratification of needs. An indulgent society is more relaxed and gives prominence to fun and enjoy life. A restrictive society suppresses the satisfaction of needs and regulates it by means of rigid social norms.

**Note.** The table presents the characteristics of Hofstede’s cultural dimension. The first column shows the three cultural dimensions used in this study. The second column indicates a brief characterization of each dimension. Source: Adapted from Bae *et al.* (2012). Culture, corporate governance, and dividend policy: international evidence. *Journal of Finance Research*, XXXV (2), 289–316; Fidrmuc, J. P., & Jacob, M. (2010). Culture, agency costs, and dividends. *Journal of Comparative Economics*, 38, 321–339 and Hofstede website.

### 3.4. Development of the hypotheses

In this section, we present the hypotheses to test. First, we present the hypotheses related with the impact of firm level corporate governance in dividend policy. After, we present the

<sup>37</sup> Information collected from Hofstede Website: <http://geert-hofstede.com/national-culture.html> at February 25, 2016

hypotheses related with the impact of culture in firm dividend policy. Finally, we analyse the joint effects of corporate governance and cultural variables in the firm dividend policy. We follow the methodology used by Bae *et al.* (2012).

### **3.4.1. Firm level corporate governance and dividend policy**

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The agency theory suggests dividends as a solution to mitigate agency problems. The shareholders have preference for dividends over retained earnings if they perceived the risk of expropriation by the insiders. Previous empirical studies show the investor protection as a control for expropriation, however, the firm level corporate governance is so important to control such situations as the legal protection offered by the country (Mitton, 2004). Corporate governance practices vary even in firms in the same country and have impact in dividend policy.

La Porta *et al.* (2000b) identify two agency models of dividends: The outcome model and the substitute model. On the one hand, the outcome model considers dividends as a result of mechanisms of legal protection and expresses the dividend payout as a result of good governance policies, because minority shareholders use those mechanisms to extract cash to the company. On the other hand, the substitute model considers the dividend as a substitute of legal protection and good governance practices. So, dividends are used in order to reduce the agency problems between managers and shareholders, replacing the mechanisms of governance.

We formulate our hypothesis according to the outcome model. In this line, we expect a positive relationship between firm level corporate governance and dividend payout ratio. The first hypothesis to be tested is the following:

H<sub>1</sub>: A high quality of firm level corporate governance is associated with a high level of dividend payout.

### **3.4.2. Culture, corporate governance and dividend policy**

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Uncertainty avoidance index (UAI) is related to how society lives with the uncertainty about the future. A high level of UAI indicates a low tolerance for uncertainty and ambiguity. In countries with high UAI score, individuals are more sceptical about the risk of investments. By contrast, individuals in countries with low UAI score take more and greater risks. Similarly, in countries with high UAI score, managers and investors would have different perception of dividends. Managers prefer to retain more cash to cover unexpected losses and financial difficulties in the future. Therefore, we expect a negative relationship between UAI and dividend payout ratio. Investors prefer to secure their gains, as the bird-in-the-hand theory of dividends suggest. Investors prefer high dividends. The preference of shareholders for dividends depends on the protection that they have in relation to their investment. In a society with high UAI score, lower levels of dividends are more predictable and provide greater perception of security and financial stability of shareholders. However, a higher level of firm corporate governance would induce firms to pay more dividends. The high level of firm corporate governance will reduce the agency problems between managers and shareholders and minimize the expropriation of minority shareholders. We expect a positive relationship between UAI and dividends payout ratio when the firm level quality of governance is better.

The masculine society (MAS) is focused on independence, results and performance. Individuals in these societies are more competitive and materialistic, so managers are expected to be “assertive”, “decisive”, and “aggressive” (Chang & Noorbakhsh, 2009). In a society with high level of MAS, managers prefer high independence and large cash holding for future investment opportunities, and make decisions based on their personal judgment. The compensation of the performance of managers is another reason why they prefer to have large cash holding. Bae *et al.* (2012) call this result the asymmetric compensation effect. The compensation of managers for their good performance is much higher than the penalty imposed on them when they demonstrate poor performance. Managers tend to maintain higher cash balances to exploit strategic opportunities faster. Thus, we expect a negative relationship between MAS and dividend payout ratio. As in firms in countries with high UAI score, also in countries with higher MAS managers and investors would have different

perception of dividends. In this line, we expect also a positive relationship between MAS and dividends payout ratio when the firm level quality of governance is better.

We assume that the firm level corporate governance and cultural dimensions are interrelated, and the improvement of firm level quality of governance reduce the effect of country cultural effects (Bae *et al.*, 2012; Fauver & McDonald, 2015), that is, it is expected that culture and dividend payout ratio varies with the quality of firm level corporate governance. If the firm presents better corporate governance, we expect a high level of dividends payout. In countries with high UAI and high MAS, a high level of governance would induce firms to pay more dividends. The analysis of two cultural dimensions, UA and MAS, gives more four hypotheses to test:

H<sub>2</sub>: The dividend payout is negatively related with UAI;

H<sub>3</sub>: The dividend payout is positively related with UAI, when firm level quality of governance is better;

H<sub>4</sub>: The dividend payout is negatively related with MAS;

H<sub>5</sub>: The dividend payout is positively related with MAS, when firm level quality of governance is better;

According to Hofstede, societies with high level of indulgence allow relatively free gratification of basic human drives, enjoying life and having fun whereas societies with high level of restraint suppress individuals' gratification of needs by regulating it by means of strict social norms. In a society with high level of indulgence, managers see dividends to reward investors for their investment. Managers adopt a short term perspective and retain lower cash for unexpected losses and financial difficulties in the future. We expect a positive relationship between the level of indulgence (IND) and dividends payout.

In countries with high IND, it is expected that a high level of firm corporate governance decreases the dividend payout ratio. A high level of corporate governance is intended to minimize the effect that releases the managers and shareholders. In this context, there are two more hypotheses:

H<sub>6</sub>: The dividend payout is positively related with IND;

H<sub>7</sub>: The positive impact of IND in dividend policy decrease with increasing of firm level quality of governance.

### 3.5. Proposed Model

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The primary goal of this research is to verify the impact of corporate governance and cultural factors in firm dividend policy. To measure the firm level corporate governance, we will use the ASSET4 Corporate Governance Performance developed by Thomson Reuters. To measure culture we will use three dimensions developed by Hofstede. The dependent variable is the dividend paid divided by total assets. Control variables are: SIZE, LEV and GROW. SIZE is the company size, measured by natural logarithm of total assets. LEV represents the firm leverage, measured by total debt divided by total assets and GROW represent the one-year growth opportunity, measured by the subtraction of the total sales in 2014 with total sales in 2013, divided by total sales in 2013. The choice of these variables is based on previous empirical studies. To control for the industry effects, we include a dummy variable. We also include a dummy variable to control for the country classification of location of the firm, that is, if the firm is located in an emerging or developed country

The proposed model is a linear regression with dividend payout ratio as a dependent variable. First, we intend to analyse the individual effects of cultural dimensions and firm level corporate governance in dividend payout ratio. Therefore, the independent variables of interest are the firm level corporate governance and cultural dimensions.

Equation 1 allows to analyse the individual effect of corporate governance and cultural factors.

$$DIV/TA_i = \beta_0 + \beta_1 GOV_i + \beta_2 CULTURE_i + \beta_3 SIZE_i + \beta_4 LEV_i + \beta_5 GROW_i + \sum_{j=1}^8 \beta_{6j} INDUSTRY + \beta_7 CLASSIFICATION + \varepsilon_i \quad (1)$$

Where:

$DIV/TA_i$  is the dividend paid divided by total assets for the company  $i$ ;

GOV is corporate governance score for the company  $i$ ;

CULTURE represents the three Hofstede's country-cultural dimensions: UAI, MAS e IND;

SIZE is natural log of total assets for the company  $i$ ;

LEV is the total debt divided by total assets for the company  $i$ ;

GROW is the subtraction of total sales in 2014 with total sales in 2013 divided by total sales in 2013 for the company  $i$ ;

INDUSTRY is a dummy variable. The company's main industry is classified into one of the following eight industries: 0001, 1000, 2000, 3000, 4000, 5000, 6000, and 7000, according to the 4-digit ICB classification; 0 otherwise. 4-digit ICB classification comprises nine nonfinancial industries;

CLASSIFICATION is a dummy variable. It takes the value of 1 if the company is located in an emerging country, 0 otherwise.

$\varepsilon_i$  is the residual effect for the company  $i$ .

With regard to the control variables, we expect a positive relationship between SIZE and dividend payout ratio. Larger firms tend to pay higher dividends and use to have better access to capital markets and raise capital. Consequently, they have a better capacity to pay and maintain dividends (e.g., Bae *et al.*, 2012; Khambata & Liu, 2005; Mitton, 2004). We expect a negative relationship between the variables LEV, GROW and dividend payout ratio. Firms with higher debt ratios tend to pay lower dividends and have less flexibility to pay dividends. (e.g., Bae *et al.*, 2012; Gugler & Yurtoglu, 2003; Jiraporn *et al.*, 2011; Khambata & Liu, 2005). Firms with higher grow rates tend to pay lower dividends to ensure cash to invest (e.g., Bae *et al.*, 2012; Jiraporn & Ning, 2006; Khambata & Liu, 2005; Mitton, 2004).

Additionally, we intend to analyse the joint effects of cultural dimensions and firm level corporate governance in dividend payout ratio. The dependent variable is dividend payout ratio as in equation 1. The independent variable that we intent to analyse is the interaction variable between corporate governance score and the Hofstede cultural dimension.

Equation 2 allows us to analyse the joint effects of culture and corporate governance in firm dividend policy.

$$\begin{aligned}
 DIV/TA_i = & \beta_0 + \beta_1 GOV_i + \beta_2 CULTURE_i + \beta_3 SIZE_i + \beta_4 LEV_i + \beta_5 GROW_i + \\
 & \beta_6 GOV_i * CULTURE_i + \sum_{j=1}^8 \beta_{7j} INDUSTRY_j + \\
 & \beta_8 CLASSIFICATION_i + \varepsilon_i
 \end{aligned} \tag{2}$$

Where:

$GOV_i * CULTURE_i$  is the interaction variable between corporate governance score for the company  $i$  and the Hofstede country-cultural dimension.

### **3.6. Conclusion**

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In this section, we have presented the sample selection and methodology that we use in the present study. First, we proceeded to the sample data, selection and sample composition. Our final sample consisted in 1 232 companies distributed in thirty-eight countries, classified by Dow Jones as emerging or developed countries.

After we presented the variables description: we presented as well the firm level corporate governance index and the cultural dimensions. The ASSET4 Corporate Governance Performance is a firm level corporate governance index, developed by Thomson Reuters and includes indicators based on five categories and sixty-eight KPI's. The ASSET4 assume values from 0 to 100: a low value indicates weak governance and a high value indicates strong governance in the firm.

To proxy for culture, we presented three country-cultural dimensions developed by Hofstede: Masculinity versus Femininity, Uncertainty Avoidance Index and Indulgence versus Restraint.

We formulated hypothesis to test the impact of corporate governance and the impact of cultural dimensions in dividend policy. Additionally, we proposed hypothesis to test the joint effects of corporate governance and cultural dimensions in dividend payout. Lastly, we presented the proposed model that we use to test our hypothesis.

## 4. Results and Discussion

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In this point, we present the results of the present research. First, we present the descriptive statistics of the variables that we use in this study. Second, we analyse the data correlation, in order to verify the existence of multicollinearity problems. Finally, we carry out the analysis of the results of the impact of corporate governance and cultural dimensions in dividend payout ratio.

The results are distributed in two points. First, we analyse the individual effects of corporate governance and cultural dimensions in dividend payout through linear regression presented by equation 1. After, we analyse the joint effects of corporate governance and cultural dimensions in dividend policy through equation 2. Finally, and in order to confirm the results, we will make some robustness tests.

The results are obtained using the software Gretl (version 2015d).

### 4.1. Descriptive Statistics

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In this section we present the descriptive statistics of the variables that we use in the present research. Table 16 shows the mean of firm dividend payout ratio, firm-level governance and cultural variables by country, for the year 2014.

Table 16: Descriptive statistics of dividend, governance and cultural variables by country

Country	No. of observations	DIV/TA	GOV	MAS	UAI	IND
Hungary	3	0.011	35.83	88	82	31
Egypt	2	0.038	2.91	45	80	4
Italy	9	0.023	66.57	70	75	30
Philippines	13	0.034	33.80	64	44	42
Israel	5	0.055	41.76	47	81	N/A
Australia	98	0.054	68.67	61	51	71
Austria	8	0.021	36.96	79	70	63
Belgium	12	0.036	54.05	54	94	57
Canada	109	0.036	72.30	52	48	68
China	16	0.019	31.41	66	30	24
United States	283	0.030	80.09	62	46	68

Table 16: Descriptive statistics of dividend, governance and cultural variables by country (cont.)

Country	No. of observations	DIV/TA	GOV	MAS	UAI	IND
Thailand	17	0.062	47.68	34	64	45
Taiwan	20	0.040	17.73	45	69	49
Denmark	11	0.064	52.09	16	23	70
Finland	20	0.053	64.91	26	59	57
France	29	0.020	70.71	43	86	48
Germany	22	0.017	54.30	66	65	40
Hong Kong	25	0.039	54.81	57	29	17
India	55	0.033	35.24	56	40	26
Ireland	7	0.016	76.38	68	35	65
Japan	166	0.010	12.95	95	92	42
Luxembourg	3	0.063	48.19	50	70	56
Malaysia	18	0.105	59.26	50	36	57
Mexico	9	0.041	14.81	69	82	97
Netherlands	16	0.021	61.31	14	53	68
New Zealand	13	0.048	59.84	58	49	75
Norway	8	0.050	55.61	8	50	55
Poland	11	0.030	20.45	64	93	29
Portugal	5	0.020	68.74	31	99	33
Russia	15	0.040	27.53	36	95	20
South Korea	40	0.009	10.43	39	85	29
Spain	16	0.025	50.87	42	86	44
Sweden	21	0.049	58.47	5	29	78
Switzerland	14	0.055	62.21	70	58	66
South Africa	17	0.062	68.89	63	49	63
United Kingdom	64	0.043	84.73	66	35	69
Indonesia	18	0.078	19.91	46	48	38
Singapore	14	0.049	61.50	48	8	46

**Note.** The table presents the mean of firm dividend payout ratio, firm-level governance and cultural variables by country. The results are obtained by using summary statistics procedure in Gretl (version 2015d). The sample consists of 1 232 firms in 38 countries for the year 2014. GOV is the firm level corporate governance measured by the ASSET4 Corporate Governance Performance and provided by *Datastream*. Masculinity versus Femininity (MAS), Uncertainty avoidance index (UAI) and Indulgence versus Restraint (IND) are Hofstede's three cultural dimensions, collected from Hofstede's website.

South Korea with 0.9%, and Japan with 1.0%, are the countries with the lowest average dividend payout ratio. Malaysia have the highest average, 10.5%, followed by Indonesia, 7.8%. United Kingdom and United States exhibit the greatest levels of quality of governance, 84.73 and 80.09 respectively. On the other hand, Egypt with 2.91 and South Korea with

10.43, exhibit the lowest levels of governance. Regarding to the cultural variables, Sweden, Singapore and Egypt present a lowest level of MAS, UAI and IND, respectively. Japan, Portugal and Mexico present a highest level of MAS, UAI and IND, respectively.

Table 17 reports the descriptive statistics and univariate results of dividend payout, firm variables, governance variable and country-culture variables.

Table 17: **Descriptive statistics and univariate results**

Variable	All Firms		Emerging Countries Firms		Developed Countries Firms		t-statistics <sup>a</sup>
	Mean	Median	Mean	Median	Mean	Median	
	DIV/TA	0.034	0.022	0.048	0.025	0.032	
SIZE	15.866	15.849	15.506	15.476	15.933	15.923	3.796
LEV	0.264	0.252	0.261	0.267	0.264	0.249	0.256
GROW	0.374	0.121	0.304	0.183	0.387	0.109	0.144
GOV	55.219	63.350	36.966	32.915	58.630	69.100	10.420
MAS	59.600	62	54.454	56	60.562	62	5.919
UAI	57.152	48	52.974	44	57.933	48	2.981
IND	55.344	68	38.655	29	58.478	68	13.861
No. of Observations	1 232	1 232	194	194	1 038	1 038	

**Note.** The table presents the descriptive statistics and univariate results. The statistics are obtained by using the software Gretl (version 2015d). The sample consists of 1 232 firms in 38 countries for the year 2014. The financial and governance data are collected from *Datastream*. Variables are as follow: DIV/TA is the dividend paid divided by total assets; SIZE is a firm size measured by the natural log of total assets; LEV is a firm leverage, measured by total debt divided by total assets; GROW is one year sales growth rate measured by subtraction of sales of the year 2014 with the sales of the year 2013, divided by the sales of the year 2013; GOV is the firm level corporate governance measured by the ASSET4 Corporate Governance performance. Masculinity versus Femininity (MAS), Uncertainty avoidance index (UAI), and Indulgence versus Restraint (IND) are Hofstede's three cultural dimensions, collected from Hofstede's website. The t-statistics are for testing differences in means.

<sup>a</sup>The results presented for the t-statistics are for the 5% level of significance. The results stay for 1% and 10% level.

The mean of dividend payout in our sample is 3.4%. A firm in our sample on average pay 3.4% of its total assets as dividends. Our dividend payout is significantly different in firms in emerging versus developed countries. The mean of the dividend payout is higher in emerging countries, near 5% of total assets, than in developed countries, near 3% to total assets.

The firm variables (SIZE, LEV and GROW) have no significant differences, except for the difference in means for the size measure. The mean of the sales growth rate (GROW) in our

sample is 37.4%. Compared to median value, 12.1%, it can be seen that there are firms that exhibit above average growth.

Regarding to the governance variable, the mean of the sample is 55.22 and the median is 63.35. There is a large disparity in relation to the governance average value between emerging and developed countries. This result is somehow anticipated: developed countries have higher quality-levels of governance than emerging countries.

Additionally, we observe that the difference of means of cultural measures is significantly different between emerging and developed countries, especially in the level of indulgence.

## **4.2. Data correlation**

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In this point, we verify the existence of correlation between the variables. To verify the existence of multicollinearity problems, we will use two methodologies: Pearson correlation coefficient and the Variance Inflation Factor (VIF). The Pearson correlation coefficient varies between  $-1$  to  $1$ , in which the value  $-1$  represents a perfect negative linear relationship and the value of  $1$  represents a perfect positive linear relationship between the variables. The multicollinearity wouldn't be a problem when the module on the coefficient value is less than  $0.75$  (moderate correlation). VIF examines also the level of multicollinearity in the regression by quantifying the estimated regression coefficient resulting from collinear between variables. The multicollinearity wouldn't be a problem when VIF value is less than  $10$ . Table 18 shows the correlations between the variables in our study.

Table 18: Correlation between variables

	<b>DIV/TA</b>	<b>SIZE</b>	<b>LEV</b>	<b>GROW</b>	<b>MAS</b>	<b>UAI</b>	<b>IND</b>	<b>GOV</b>	<b>VIF</b>
<b>DIV/TA</b>	1	-0.3084***	-0.099***	-0.0155	-0.1798***	-0.2131***	0.1327***	0.0997***	
<b>SIZE</b>		1	0.1697***	-0.0206	0.0638**	0.0579**	-0.0937***	0.1579***	1.147
<b>LEV</b>			1	-0.0221	-0.0056	-0.0234	0.0553	0.0899***	1.038
<b>GROW</b>				1	0.0106	-0.0389	0.0184	0.0246	1.003
<b>MAS</b>					1	0.3894***	-0.1362***	-0.2563***	1.198
<b>UAI</b>						1	-0.4076***	-0.5597***	1.670
<b>IND</b>							1	0.5892***	1.640
<b>GOV</b>								1	2,095

**Note.** The coefficients reported are obtained in Gretl (version 2015d). The sample consists of 1 232 firms in 38 countries for the year 2014. DIV/TA is the dividend paid divided by total assets; SIZE is a firm size measured by the natural log of total assets; LEV is a firm leverage, measured by total debt divided by total assets; GROW is one year sales growth rate measured by the subtraction of sales of the year 2014 with the sales of the year 2013, divided by the sales of the year 2013; GOV is the firm level corporate governance measured by the ASSET4 Corporate Governance performance. Masculinity versus Femininity (MAS), Uncertainty avoidance index (UAI) and Indulgence versus Restraint (IND) are Hofstede's three cultural dimensions, collected from Hofstede's website. The significance levels are indicated by \*\* and \*\*\*, that represents 5%, and 1% level, respectively.

With regard to the analysis of Pearson correlation coefficient, we can see that there are no multicollinearity problems between the variables. The variables with the highest correlation coefficient are IND and GOV ( $r= 0.5892$ ) and UAI and GOV ( $r=0.5597$ ). Div/TA presents an inverse and significant relationship with SIZE and LEV. The Pearson correlation coefficient shows a different relationship between the Hofstede's three cultural dimensions. Div/TA shows a negative and significant relationship with MAS and UAI, as well as a positive and significant relationship with IND. We also can verify that Div/TA is significantly and positively correlated with GOV. These results are consistent with our hypotheses.

The VIF analysis confirms that there are no multicollinearity problems, since the values are less than 10. The results show that there are conditions for the use of these variables in the regression model.

### **4.3. Individual effects of governance and culture in dividend payout ratio**

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In order to examine the impact of the quality of corporate governance and culture in firm dividend policy, we will proceed with a regression analysis. For this, we will use the equation 1 presented in the section 3.5 (proposed model). Table 19 reports the regression coefficients estimates for four models using OLS estimation method.

Model 1 only includes the governance variable, GOV, without cultural variables. Models 2-4 include each of the three cultural variables<sup>38</sup> separately, as well as GOV variable.

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<sup>38</sup> The six cultural dimensions developed by Hofstede are described in the literature review chapter. In the present research, we only test three of the six cultural dimensions: MAS, UAI and IND. The cultural dimensions PDI, IDV and LTO do not present relevant results, as can be seen in the results presented in Appendix 1 and were therefore not taken into account.

Table 19: Regression Analysis of effect of governance and cultural dimensions in dividend payout

Variables	Model 1	Model 2	Model 3	Model 4
SIZE	-0.0098*** (0.0014)	-0.0095*** (0.0014)	-0.0093*** (0.0014)	-0.0091*** (0.0013)
LEV	-0.0209** (0.0087)	-0.0207** (0.0087)	-0.0206** (0.0086)	-0.0228 *** (0.0087)
GROW	-0.0002*** (0.0000)	-0.0002*** (0.0002)	-0.0002*** (0.0000)	-0.0002*** (0.0000)
GOV	0.0003*** (0.0000)	0.0002*** (0.0000)	0.0002*** (0.0001)	0.0002*** (0.0001)
MAS		-0.0002*** (0.0001)		
UAI			-0.0003*** (0.0001)	
IND				0.0003*** (0.0001)
CLASSIFICATION	0.0164*** (0.0053)	0.01422*** (0.0054)	0.01282** (0.0056)	0.0205*** (0.0055)
Industry	Yes	Yes	Yes	Yes
No. of observations	1 232	1 232	1 232	1 227
R <sup>2</sup>	0.1803	0.1894	0.1892	0.1874

**Note.** The results are obtained by Gretl (version 2015d). The table shows the results of OLS for the 1 232 companies, using a firm dividend paid divided by total assets as the dependent variable. The financial and governance data are collected from *Datastream*. SIZE is a firm size measured by the natural log of total assets; LEV is a firm leverage, measured by the total debt divided by total assets; GROW is one year sales growth rate measured by subtraction of sales of the year 2014 with the sales of the year 2013, divided by the sales of the year 2013; GOV is the firm level corporate governance measured by the ASSET4 Corporate Governance Performance. Masculinity versus Femininity (MAS), Uncertainty avoidance index (UAI) and Indulgence versus Restraint (IND) are Hofstede's three cultural dimensions, collected from Hofstede's website. The Industry Classification comprises nine nonfinancial industries, following the *Industry Classification Benchmark*, collected from *Datastream*. The country classification identifies if the company is located in an emerging or developed country and are collected from the Annual Country Classification Review developed by S&P Dow Jones. The standard errors are shown in brackets and are corrected for heteroscedasticity and autocorrelation according to Newey and West (1987). The significance levels are indicated by \*\* and \*\*\* that represent 5%, and 1% level, respectively.

The estimated coefficients of firm variables are consistent with our expectations. LEV and GROW present a negative relationship with dividend payout ratio. Firms with higher debt ratios and higher growth rate tend to pay lower dividends. The findings are consistent with the literature (Bae *et al.*, 2012; Esqueda, 2016; Harford *et al.*, 2008; Khambata & Liu, 2005; La Porta *et al.*, 2000a). Contrary to what happens in most of the literature, LEV presents a negative relationship with dividend payout. Gugler and Yurtoglu (2003) show the same relationship.

As shown in model 1, the firm level quality of governance and dividend payout ratio present a positive and significant coefficient (at the 1% level), as expected. This indicates a positive relationship between corporate governance and dividend payout ratio. These results support our first hypothesis. In other words, firms with high level of corporate governance have higher dividend payout ratio. These findings are consistent with the outcome model identified by La Porta *et al.* (2000b), and subsequent results of Bae *et al.* (2012), Gugler and Yurtoglu (2003), Jiraporn *et al.* (2011), Mitton (2004) and Marques (2013).

In model 2-4, we add the MAS, UAI and IND cultural dimensions. MAS and UAI present a negative and significant coefficient (at the 1% level), indicating a negative relationship between each one of these two cultural dimensions and dividend payout ratio. The results support our hypotheses 2 and 4. Firms in countries with high MAS and high UAI tend to have lower dividend payout ratio. As we expected, in countries with higher UAI score, managers prefer to retain more cash to cover unexpected losses and financial difficulties in the future. Our results show that the managers' perspective tends to dominate in countries with higher UAI. These results are consistent with empirical evidence presented by Antia, Lin and Pantzalis (2007), Bae *et al.* (2012), Fidrmuc and Jacob (2010) and Khambata and Liu (2005). In the same line, in a society with high level of MAS, managers prefer high independence and large cash holding for future investment opportunities. Managers tend to maintain higher cash balances to exploit strategic opportunities faster, in order to be compensated for their results - asymmetric compensation effect (Bae *et al.*, 2012). These results are consistent with Antia, Lin and Pantzalis (2007), Bae *et al.* 2012 and Shao *et al.* (2010).

IND presents a positive and significant coefficient (at the 1% level), indicating a positive relationship with dividend payout ratio. The results support our hypothesis 6, that is, firms in countries with high level of IND tend to have higher dividend payout. In a society with high level of indulgence, managers see dividends to reward investors for their investment. These results are consistent with results obtained in robustness tests by Zheng and Ashraf (2014). Contrary to what happens in societies with high level of MAS and UAI, in countries with a high level of IND managers do not seek investments only for their own benefits and do not put their personal interests first. They adopt a short-term perspective which implies greater dividends payment.

$R^2$  varies from 18.03% and 18.94%. These values are similar to those obtained by Zheng and Ashraf (2014) and better than the results obtained by Bae *et al.* (2012), whose values varie between 9% and 12%.

The coefficient of the variable CLASSIFICATION is positive and significant for the four models. It means that emerging countries tend to pay higher dividends than developed countries. Using model 1, we conclude that firms in emerging countries pay an average 1.64% more dividends than firms in developed countries. This percentage increases to 2.05% when countries have high IND (model 4).

Emerging countries present higher risk of higher investment and lower market capitalization than the developed countries. The distribution of dividends is used as a way to capture the attention of investors. The results are consistent with signalling effects and the outcome model of dividends (Esqueda, 2016; Mitton, 2004).

Next, we break up the sample by emerging and developed countries. Table 20 shows the results. Model 1 and 5 are only governance variable, GOV, without cultural variables for emerging and developed countries, respectively. Models 2-4 and models 6-8 include each of three cultural variables separately as well as GOV in the regression.

Table 20: Regression Analysis of governance and cultural dimensions in dividend payout ratio for emerging and developed countries

Variables	Emerging Countries				Developed Countries			
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
SIZE	-0.0232*** (0.0078)	-0.0219*** (0.0080)	-0.0232*** (0.0078)	-0.0235*** (0.0079)	-0.0082*** (0.0012)	-0.0079*** (0.0012)	-0.0074*** (0.0011)	-0.0074*** (0.0011)
LEV	-0.0480* (0.0285)	-0.0517* (0.02886)	-0.0487* (0.0289)	-0.0482* (0.0284)	-0.013 (0.0091)	-0.0124 (0.0089)	-0.0111 (0.0088)	-0.0149* (0.0089)
GROW	-0.0003 (0.0008)	-0.0003 (0.0007)	-0.0004 (0.0007)	-0.0001 (0.0009)	-0.0002*** (0.0000)	-0.0001*** (0.0000)	-0.0002*** (0.0000)	-0.0002*** (0.0000)
GOV	0.0007** (0.0003)	0.0007** (0.0003)	0.0007** (0.0003)	0.0006** (0.0003)	0.0002*** (0.0000)	0.0002*** (0.0000)	0.0000 (0.0000)	0.0001** (0.0000)
MAS		-0.0005 (0.0004)				-0.0002*** (0.0001)		
UAI			-0.0001 (0.0002)				-0.0004*** (0.0001)	
IND				0.0003 (0.0002)				0.0003** (0.0001)
Industry	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. Of Observations	194	194	194	194	1038	1038	1038	1038
R <sup>2</sup>	0.2673	0.2726	0.2679	0.2725	0.1749	0.1909	0.2064	0.1856

**Note.** The results are obtained by Gretl (version 2015d). The table shows the results of OLS for the 1 232 companies, using a firm dividend paid divided by total assets as the dependent variable. The financial and governance data are collected from *Datastream*. SIZE is a firm size measured by the natural log of total assets; LEV is a firm leverage, measured by the total debt divided by total assets; GROW is one year sales growth rate measured by the subtraction of sales of the year 2014 with the sales of the year 2013, divided by the sales of the year 2013; GOV is the firm level corporate governance measured by the ASSET4 Corporate Governance Performance. Masculinity versus Femininity (MAS), Uncertainty avoidance index (UAI) and Indulgence versus Restraint (IND) are Hofstede's three cultural dimensions, collected from Hofstede's website. The Industry Classification comprises nine nonfinancial industries, following the *Industry Classification Benchmark*, collected from *Datastream*. The country classification is collected from the Annual Country Classification Review developed by S&P Dow Jones. The standard errors are shown in

brackets and are corrected for heteroscedasticity and autocorrelation according to Newey and West (1987). The significance levels are indicated by \*, \*\* and \*\*\* that represent 10%, 5%, and 1% level, respectively.

In emerging countries, reported in models 1-4, GOV present a positive and significant (at the 5% level) relationship with dividends payout ratio.

The coefficients of MAS, UAI and IND are not significant. The lack of significance may be supported by the fact that in emerging markets the legal system, the country level investor protection, firm level corporate governance and the development of markets may minimize the cultural effects<sup>39</sup>. Cultural characteristics will have limited importance. In emerging countries, the risk of expropriation is high, and the investor protection is weak. Therefore, firm level corporate governance carry a great importance (Mitton, 2004).

In developed countries, GOV presents a positive and significant coefficient, except in model 7. As in emerging countries, a high firm level corporate governance is associated with a high dividend payout. Again, the results corroborate our first hypothesis. The coefficient of MAS and UAI is negative and significant. On the other hand, IND presents a positive and significant coefficient. The results are consistent with our hypotheses 2, 4 and 6.

As expect, the impact of firm level corporate governance and cultural dimensions in dividend policy is different for emerging and developed countries. The results show that dividend payout ratio in emerging markets is considerably less affected by national culture relative to developed countries. A better firm level corporate governance substantially reduces the cultural effects in emerging countries.

#### **4.4. Analyses of joint effects of governance and cultural dimensions in dividends payout**

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The equation 1 only gives us the effect of cultural dimensions and firm level corporate governance in the firm dividend policy. We also intend to analyse the joint effects of corporate governance and cultural dimensions in dividend payout ratio. In other words, we intent to analyse how the relationship between culture and dividend payout ratio varies with the strength of firm level corporate governance. It is necessary to analyse the marginal effects

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<sup>39</sup> Fauver and McDonald (2015) show identical results of the impact of culture (Risk aversion and Individualism) in capital structure in emerging market. They found that capital structure in emerging markets is considerably less affected by national culture in relation to developed countries. In emerging markets, where debt costs are likely to be controlled by the government and state owned banks, culture has a diminished effect.

of cultural dimensions in the dividend payout ratio when associated with the firm level corporate governance. The proposed model that we will use to consider the joint effects is a linear regression with dividend payout as a dependent variable translated by equation 2.

We include an interaction variable. To create the interaction variable between firm level corporate governance (GOV) and cultural dimensions (CULTURE), we must eliminate eventual multicollinearity problems, once these variables have a moderate correlation, namely GOV and UAI ( $r=-0.5597$ ) and GOV and IND ( $r=0.5892$ ). Following the methodology used by Cronbach, (1987) it is necessary to center the variables, that is, make an adjustment of the variables in relation to their mean. After this procedure, the creation of the interaction variable is done by multiplying the center firm level corporate governance with center cultural dimensions (GOV\*CULTURE), in which culture represents the three Hofstede's cultural dimensions, MAS, UAI and IND. Table 21 reports the regression coefficients estimated from OLS regression.

**Table 21: Regression analysis of the joint effects of governance and cultural dimensions in dividend payout**

<b>Variables</b>	<b>Model 5</b>	<b>Model 6</b>	<b>Model 7</b>
SIZE	-0.009436*** (0.0014)	-0.009286*** (0.0014)	-0.009209*** (0.0013)
LEV	-0.020938** (0.0087)	-0.020849** (0.0087)	-0.021810** (0.0086)
GROW	-0.000173*** (0.0000)	-0.000188*** (0.0000)	-0.000166*** (0.0000)
GOV	0.000223*** (0.0001)	0.000164*** (0.0001)	0.000192*** (0.0001)
MAS	-0.000167*** (0.0001)		
UAI		-0.000233*** (0.0001)	
IND			0.000184* (0.0001)
GOV*MAS	0.000004* (0.0000)		
GOV*UAI		0.000002 (0.0000)	
GOV*IND			-0.000009***

Table 21: **Regression analysis of the joint effects of governance and cultural dimensions in dividend payout** (cont.)

Variables	Model 5	Model 6	Model 7
Emerging Countries	0.0132** (0.0056)	0.0121** (0.0061)	0.0195*** (0.0055)
Industry	Yes	Yes	Yes
No of Observations	1 232	1 232	1 227 <sup>a</sup>
R <sup>2</sup>	0.1913	0.1898	0.1948

**Note.** The results are obtained by Gretl (version 2015d). The table shows the results of OLS for the 1 232 companies, using a firm dividend paid divided by total assets as the dependent variable. The financial and governance data are collected from *Datastream*. SIZE is a firm size measured by the natural log of total assets; LEV is a firm leverage, measured by the total debt divided by total assets; GROW is one year sales growth rate measured by the subtraction of sales of the year 2014 with the sales of the year 2013, divided by the sales of the year 2013; GOV is the firm level corporate governance measured by the ASSET4 Corporate Governance Performance. Masculinity versus Femininity (MAS), Uncertainty avoidance index (UAI) and Indulgence versus Restraint (IND) are Hofstede's three cultural dimensions, collected from Hofstede's website. GOV\*MAS, GOV\*UAI and GOV\*IND are the interaction variables of GOV interacted with MAS, UAI and IND, respectively. The variables are constructed by multiplying the variable GOV with MAS, UAI and IND respectively, centred in relation to their mean. The Industry Classification comprises nine nonfinancial industries, following the *Industry Classification Benchmark*, collected from *Datastream*. The country classification identifies if the company is located in an emerging or developed country and are collected from the Annual Country Classification Review developed by S&P Dow Jones. The standard errors are shown in brackets and are corrected for heteroscedasticity and autocorrelation according to Newey and West (1987). The significance levels are indicated by \*, \*\* and \*\*\* that represent 10%, 5%, and 1% level, respectively.

<sup>a</sup> In model 7 only are considered 1 227 observations because there are 5 missing observations for the variable indulgence.

In the models 5-7, the interaction variables GOV\*MAS, GOV\*UAI and GOV\*IND enter the regression with GOV separately.

In the three models, the governance and cultural variables maintain their significance. The coefficients are similar to the results of table 19. GOV and IND are positively related and the cultural variables UAI and MAS are negatively correlated with dividend payout ratio.

All the estimate coefficients of the interaction variables (GOV\*MAS, GOV\*UAI and GOV\*IND) are very close to zero. The estimate results for the interaction variable GOV\*MAS are positive and significant (at the 10% level). As we expect, the dividend payout ratio is positively correlated with MAS when firm level corporate governance is high. The relationship between MAS and dividend payout ratio is negative, but the joint effect MAS\*GOV is positive. That is to say, in countries with high MAS, the level of dividend payout ratio is higher, when the firm level quality of governance is higher. The results show that culture and dividend payout ratio vary with the strength of firm level corporate governance. A high quality level of corporate governance can minimize the agency problems between managers and shareholders. The results confirm our hypothesis 5. The coefficient of variable GOV\*UAI is not significant, so it does not allow us to draw conclusions about

the hypothesis 3. IND presents a positive and significant relationship with dividend payout ratio. However, when we analyse the joint effect, GOV\*IND, the coefficient is negative and significant. In countries with high IND, a high level of firm corporate governance, decrease the dividend payout ratio. That is to say, in countries with high IND, high level of firm corporate governance fosters a long-term orientation and greater weighting in investment decisions/dividend payout. The results are consistent with hypothesis 7. Additionally, it happens that the cultural effects are attenuated by the high firm level of quality of corporate governance. To summarize the results of the present study, table 22 shows the results compilation of hypotheses.

Table 22: **Results Compilation**

	<b>Hypotheses</b>	<b>Evidence</b>	<b>Relationship</b>
<b>H<sub>1</sub></b>	A high quality of firm level corporate governance is associated with a high level of dividend payout;	Yes	Positive and significant
<b>H<sub>2</sub></b>	The dividend payout is negatively related with UAI;	Yes	Negative and significant
<b>H<sub>3</sub></b>	The dividend payout is positively related with UAI, when firm level quality of governance is better;	No evidence	No significant
<b>H<sub>4</sub></b>	The dividend payout is negatively related with MAS;	Yes	Negative and significant
<b>H<sub>5</sub></b>	The dividend payout is positively related with MAS, when firm level quality of governance is better;	Yes	Positive and significant
<b>H<sub>6</sub></b>	The dividend payout is positively related with IND;	Yes	Positive and significant
<b>H<sub>7</sub></b>	The positive impact of IND in dividend policy decrease with increasing of firm level quality of governance.	Yes	Negative and significant

## **4.5 Robustness Tests**

To corroborate our empirical results, we perform two robustness tests. First, we analyse any multicollinearity problems between cultural dimensions and firm level corporate governance. Second, we created a cultural index based in Components Principal Analyses (PCA), in order to confirm the impact of cultural dimensions in dividend payout.

## 4.5.1 Multicollinearity between corporate governance and cultural dimensions

The empirical literature evidences cultural variables as a proxy for corporate governance. Cultural factors have been suggested to explain differences in corporate policies across countries (Licht, 2001; Licht *et al.*, 2005; Stulz & Williamson, 2003).

It is expected that these two variables are related to each other. Previously, we found that the correlation between cultural variables and corporate governance are moderate. In order to confirm that our regression was not influenced by multicollinearity problems, we follow Bae *et al.* (2012) and we estimate the regression with the help of orthogonal cultural variables.

We follow Zheng and Ashraf (2014) to create orthogonal variables. First, we estimate a regression model for each cultural dimension, MAS, UAI and IND as dependent variable and GOV as an independent variable<sup>40</sup>. Second, we name the predicted residuals of MAS, UAI and IND as MAS\_Orthog, UAI\_Orthog and IND\_Orthog, respectively. Third, we use the orthogonal cultural variables in place of the original three cultural dimensions. Finally, we re-estimate de OLS regression. The results are reported in models 9-11 of Table 23.

Table 23: **Regression Analysis of governance and orthogonal cultural dimensions in dividend payout ratio**

Variables	Model 9	Model 10	Model 11
SIZE	-0.0096*** (0.0014)	-0.0093*** (0.0014)	-0.0091*** (0.0013)
LEV	-0.0207** (0.0087)	-0.0206** (0.0086)	-0.0228*** (0.0087)
GROW	-0.0002*** (0.0000)	-0.0002*** (0.0000)	-0.0001*** (0.0000)
GOV	0.0003*** (0.0000)	0.0003*** (0.0000)	0.0003*** (0.0000)
MAS_Orthog	-0.0002*** (0.0001)		

<sup>40</sup> Regressions are the following:

$$MAS_i = \beta_0 + \beta_1 \cdot GOV_i + \varepsilon_i$$

$$UAI_i = \beta_0 + \beta_1 \cdot GOV_i + \varepsilon_i$$

$$IND_i = \beta_0 + \beta_1 \cdot GOV_i + \varepsilon_i$$

Table 23: **Regression Analysis of governance and orthogonal cultural dimensions in dividend payout ratio** (*cont.*)

Variables	Model 9	Model 10	Model 11 <sup>a</sup>
IND_Orthog			0.0003*** (0.0001)
Emerging Countries	0.0142*** (0.0054)	0.0128** (0.0056)	0.0205*** (0.0054)
Industry	Yes	Yes	Yes
No. Of Observations	1 232	1 232	1 227
R <sup>2</sup>	0.1895	0.1892	0.1874

**Note.** The results are obtained by Gretl (version 2015d). The table shows the results of OLS for the 1 232 companies, using a firm dividend paid divided by total assets as the dependent variable. The financial and governance data are collected from *Datastream*. SIZE is a firm size measured by the natural log of total assets; LEV is a firm leverage, measured by total debt divided by total assets; GROW is one year sales growth rate measured by the subtraction of sales of the year 2014 with the sales of the year 2013, divided by the sales of the year 2013; GOV is the firm level corporate governance measured by the ASSET4 Corporate Governance Performance. MAS\_Orthog, UAI\_Orthog and IND\_Orthog are orthogonal cultural variables. The Industry Classification comprises nine nonfinancial industries, following the *Industry Classification Benchmark*, collected from *Datastream*. The country classification identifies if the company is located in an emerging or developed country and are collected from the Annual Country Classification Review developed by S&P Dow Jones. The standard errors are shown in brackets. The standard errors are shown in brackets and are corrected for heteroscedasticity and autocorrelation according to Newey and West (1987). The significance levels are indicated by \*, \*\* and \*\*\* that represent 10%, 5%, and 1% level, respectively.

<sup>a</sup> In model 11 only are considered 1 227 observations because there are 5 missing observations for the variable indulgence.

Using orthogonal cultural variables, the results are consistent with the ones obtained in the estimation of the models 2-4, as it is reported in table 19. The results show that our first analyses present no problems of multicollinearity.

## 4.5.2 Cultural dimension index

We include the variables MAS, UAI and IND separately, not to lose significance in the model and because they all seek to represent the country effect.

In order to capture the contribution of each variables in dividend payout ratio we aggregate them into one representative variable. For this propose we use an explanatory principal component analysis (PCA), following Ammann, Oesch, and Schmid (2011) and Jorge (2012), to construct a cultural index (CLT\_FT). We use PCA to obtain the weighting of each cultural variable in the cultural dimension index.

The panel A of Table 24 reports the eigenvalues and variance explained. To create the variable CLT\_FT using the principal component analysis, we retain the factors that have an

eigenvalue greater than unity. We define our cultural index as the first principal component of the PCA, which retains 54.61% of the total variance.

The panel B of Table 24 reports the factor loading of principal components. We associate the factor of the three variables once that all exceed 0.4 in absolute value. This suggests that these three variables are relevant to the cultural index.

Table 24: **Cultural index based on explanatory principal components analysis**

<b>Panel A. Eigenvalues and variance explained</b>			
Eigenvalue	<b>1.6391</b>	0.865	0.4927
Variance explained	0.5461	0.2882	0.1657
Variance explained (cumulative)	0.5461	0.8343	1
<b>Panel B. Factor loading of principal components</b>			
<b>Variables</b>	PC1	PC2	PC3
MAS	<b>-0.524</b>	0.721	0.453
UAI	<b>-0.663</b>	-0.011	-0.749
IND	<b>0.534</b>	0.693	-0.484

**Note.** Panel A reports the eigenvalues and the variance explained. Panel B reports the factor loadings of the three cultural dimensions included in PCA. First, we retain the factors with an eigenvalue greater than unity. Second, we follow Ammann *et al.* (2011) and Jorge (2012) and calculate the equally weighted averages of the cultural dimensions with factor loadings in excess of 0,4 in absolute value. We associate the factor of the three variables once that all exceed 0,4 in absolute value. Masculinity versus Femininity (MAS), Uncertainty avoidance index (UAI) and Indulgence versus Restraint (IND) are Hofstede's three cultural dimensions analysed, collected from Hofstede's website.

The factor analysis of main components allows us to check the expected relationship between CLT\_FT and dividend payout. The components MAS and UAI present a negative signal. Therefore, the higher the value of the variables MAS and UAI, keeping constant the variable IND, the lower the CLT\_FT value and consequently lower the value of dividend payout. In the other hand, in countries with high value of IND and low values of MAS and UAI (keeping constant the variables MAS and UAI) present a higher CLT\_FT value and a higher value of dividend payout. Therefore, we expect a positive relationship between the index and the corporate dividend payout.

After creating the CLT\_FT we use Model 12 and re-estimate the OLS regressions using this variable as proxy for culture.

The results are reported in Table 25.

Table 25: Regression Analysis of governance and cultural index in dividend

Variables	Model 12 <sup>a</sup>
SIZE	-0.0087*** (0.0014)
LEV	-0.0219** (0.0086)
GROW	-0.0002*** (0.0000)
GOV	0.0001* (0.0001)
CLT_FT	0.0003*** (0.0001)
Emerging Countries	0.0145*** (0.0054)
Industry	Yes
No. Of Observations	1 227
R <sup>2</sup>	0.1994

**Note.** The results are obtained by Gretl (version 2015d). The table shows the results of OLS for the 1 232 companies, using a firm dividend paid divided by total assets as the dependent variable. The financial and governance data are collected from *Datastream*. SIZE is a firm size measured by the natural log of total assets; LEV is a firm leverage, measured by total debt divided by total assets; GROW is one year sales growth rate measured by the subtraction of sales of the year 2014 with the sales of the year 2013, divided by the sales of the year 2013; GOV is the firm level corporate governance measured by the ASSET4 Corporate Governance Performance. CLT\_FT is a cultural index which is computed as the common factor derived from PCA of three measures of cultural dimensions. The Industry Classification comprises nine nonfinancial industries, following the *Industry Classification Benchmark*, collected from *Datastream*. The country classification identifies if the company is located in an emerging or developed country and are collected from the Annual Country Classification Review developed by S&P Dow Jones. The standard errors are shown in brackets and are corrected for heteroscedasticity and autocorrelation according to Newey and West (1987). The significance levels are indicated by \*, \*\* and \*\*\* that represent 10%, 5%, and 1% level, respectively.

<sup>a</sup> The OLS regressions that we use is:  $DIV/TA_i = \beta_0 + \beta_1 GOV_i + \beta_2 CULTURE_i + \beta_3 SIZE_i + \beta_4 LEV_i + \beta_5 GROW_i + \sum_{j=1}^8 \beta_{6j} INDUSTRY_j + \beta_7 CLASSIFICATION + \varepsilon_i$ ; where CULTURE is the cultural index CLT\_FT.

As we expected, the results show a positive and significant (at the 1% level) relationship between CLT\_FT and DIV/TA. It means that companies in countries with high CLT\_FT, i.e. lower values of MAS/IAU, pay higher dividends. On the other hand, countries with a value of CLT\_FT is lower, (higher value MAS/UAI) pay less dividends<sup>41</sup>.

<sup>41</sup> For example, in Australia, the value of CLT\_FT is -27.863 and the mean of corporate payout dividend in the country is 0.0544. In Japan, the value of CLT\_FT is -88.348 and the mean of payout dividend in the country is 0.0103. In the other hand, in Denmark, CLT\_FT is 13.747 and the mean of payout dividend is 0.06397.



## 5. Conclusion

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The impact of corporate governance and cultural factors in financial policies has been studied in the literature for many years. In the present research, we intend to analyse the impact of culture and corporate governance in corporate dividend policy, for a sample of 1 232 companies in 38 countries that are classified as emerging or developed. We analysed the relationship between firm level quality of corporate governance and dividend payout ratio, and three Hofstede's cultural dimensions and dividend payout ratio. We also analysed the joint effects of cultural dimensions and corporate governance in dividend payout ratio.

We show that firm level quality of corporate governance has a positive and significant relationship with dividend payout. It means that firms with high level of quality of corporate governance pay high dividends. The results are consistent with Gugler and Yurtoglu (2003) Jiraporn *et al.* (2011), La Porta *et al.* (2000b), Mitton (2004) and Marques (2013).

To the cultural dimensions, dividend payout ratio presents a negative relationship with masculinity (MAS) and uncertainty avoidance (UAI), as well as a positive relationship with indulgence (IND). As we expected, countries with high level of masculinity and uncertainty avoidance (MAS and UAI) pay lower dividends, and countries with high level of indulgence (IND) tend to pay higher dividends.

These measures have differential impact in emerging versus developed countries. In emerging countries, firm level corporate governance has a high importance. In contrast, cultural characteristics will have limited importance. Dividend payout ratio in emerging markets is considerably less affected by national culture in relation to developed countries. A better firm level corporate governance substantially reduces the cultural effects in emerging countries.

Emerging countries tend to pay higher dividends than the developed countries. The distribution of dividends in emerging countries is a way to capture the attention of investors. With regard to the joint effects of cultural dimensions and firm level corporate governance, we concluded that culture and dividend payout ratio varies with the improvement of firm level quality of corporate governance.

The main contributions of this study fall on the sample. We provide empirical evidence from emerging and developed countries. The vast majority of empirical studies on the topic of dividends are occupied with emerging countries, or consider a sample worldwide, without differentiation between countries. We have examined the difference of firm level corporate governance and cultural factors for emerging and developed markets and their impact on dividend payout ratio. Another empirical contribution to this study is the test about the cultural dimension *Indulgence* that had not yet been studied in this context.

The main limitations of the study have to do with the cultural variables that we use. Although Hofstede's cultural dimensions are widely tested in the literature, there are dimensions developed more recently. For example, Dorfman, Javidan, Hanges, Dastmalchian, and House (2012) study presents a set of cultural dimensions based on GLOBE<sup>42</sup> project. It would be interesting to use these variables in testing our hypotheses.

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<sup>42</sup> Global Leadership and Organizational Effectiveness. "GLOBE is both a research program and a social entity. The GLOBE social entity is a network of 170 social scientists and management scholars from 61 cultures throughout the world, working in a coordinated long-term effort to examine the interrelationships between societal culture, organizational culture and practices, and organizational leadership. The goal of GLOBE Research Program is to develop an empirically based theory to describe, understand, and predict the impact of cultural variables on leadership and organizational processes and the effectiveness of these processes."(House *et al.*, 2015)

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# Appendices

## Appendix 1

Table 1: Regression Analysis of governance and cultural dimensions in dividend payout

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
SIZE	-0.009*** (0.0014)	-0.009*** (0.0016)	-0.010*** (0.0014)	-0.009*** (0.0014)	-0.009*** (0.0014)	-0.009*** (0.0014)	-0.009*** (0.0013)
LEV	-0.0209** (0.0087)	-0.0208** (0.0088)	-0.0204** (0.0088)	-0.0207** (0.0087)	-0.0206** (0.0086)	-0.0215** (0.0088)	-0.0228*** (0.0087)
GROW	-0.0002*** (0.0000)	-0.0002*** (0.0000)	-0.0002*** (0.0000)	-0.0002*** (0.0002)	-0.0002*** (0.0000)	-0.0002*** (0.0000)	-0.0002*** (0.0000)
GOV	0.0003*** (0.0000)	0.0003*** (0.0000)	0.0003*** (0.0000)	0.00024*** (0.0000)	0.00017*** (0.0001)	0.0002*** (0.0000)	0.00020*** (0.0001)
PDI		0.0000 (0.0002)					
IDV			-0.0000 (0.0001)				
MAS				-0.0002*** (0.0001)			
UAI					-0.0003*** (0.0001)		
LTO						-0.0000 (0.0000)	
IND							0.0003*** (0.0001)
CLASS.	0.0164*** (0.0053)	0.0163*** (0.0049)	0.0143*** (0.0043)	0.01422*** (0.0054)	0.01282** (0.0056)	0.0156*** (0.0058)	0.0205*** (0.0055)
Industry	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table 1: **Regression Analysis of governance and cultural dimensions in dividend payout** (*cont.*)

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
No. Of observations	1 232	1 232	1 232	1 232	1 232	1 232	1 227
R <sup>2</sup>	0.1803	0.1803	0.1814	0.1894	0.1892	0.1811	0.1874

**Note.** The results are obtained by Gretl (version 2015d). The table shows the results of OLS for the 1 232 companies, using a firm dividend paid divided by total assets as the dependent variable. The financial and governance data are collected from *Datastream*. SIZE is a firm size measured by the natural log of total assets; LEV is a firm leverage, measured by total debt divided by total assets; GROW is one year sales growth rate measured by the subtraction of sales of the year 2014 with the sales of the year 2013, divided by the sales of the year 2013; GOV is the firm level corporate governance measured by the ASSET4 Corporate Governance Performance. Power distance index (PDI), Individualism versus Collectivism (IDV), Masculinity versus Femininity (MAS), Uncertainty avoidance index (UAI), Long Term Orientation (LTO) and Indulgence versus Restraint (IND) are Hofstede’s six cultural dimensions, collected from Hofstede’s website. The Industry Classification comprises nine nonfinancial industries, following the *Industry Classification Benchmark*, collected from *Datastream*. The country classification identifies if the company is located in an emerging or developed country and are collected from the Annual Country Classification Review developed by S&P Dow Jones. The standard errors are shown in brackets and are corrected for heteroscedasticity and autocorrelation according to Newey and West (1987). The significance levels are indicated by \*\* and \*\*\* that represent 5%, and 1% level, respectively.